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Science Fiction

SEPTEMBER 1946

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THE TOYMAKER
By Raymond F. Jones

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SCIENCE FICTION

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Editor
JOHN W. CAMPBELL, JR



SPANISH ATOMS

This magazine can't, by the nature of its material, be a news magazine. We are, inevitably, months behind the current events by the time we hit the newsstands. The situation with respect to Spain, Poland, atomic investigations, and the United Nations will probably have been settled somehow by the time this item appears. Essentially, that is unimportant; though the following discussion is based on a specific example, the point of the discussion is general, and applicable for the next five years or so.

Spain, in answering Poland's charge that Spanish and German scientists are investigating atomic energy, has replied, in effect, "We aren't—but we have a perfect right to if we want to."

Correct. Spanish scientists have a perfect right to. So have the scientists of every nation on Earth, with the exception of those no-longer-sovereign states which are under military occupation. And, of course, the scientists of the United States, since in this country atomic energy itself is under military occupation.

At the present stage of the world's development, nuclear physics has produced two forms of atomic energy; one, the all-or-nothing release of energy of the atomic bomb, the other the slow, low-temperature release mechanism

of the atomic pile. Neither is, *at present*, of any industrial value; the bomb can't be used for blasting operations, such as canal building, because its effect is, literally, shocking. Dynamite lets go with a terrific *heave* that boosts rock, earth, and obstacles out of the way. I've forgotten who described it so aptly as something that "crawls into a little hole, throws out its chest, and makes room for man," but that describes the process. Atomic bombs don't heave; they strike with a literally irresistible impact, they can shake down a city, but they can't blow it up.

At present, the energy of the atomic pile can't be harnessed effectively. It could be used for low-temperature steam generation, for heating buildings and the like, but not for power generation. (But be it remembered that more fuel energy is used in the United States for heating buildings and the like than for generating power.)

This would make it appear that, at present, atomic research can have only military value—can be only a military project. In the United States, of course, the atomic piles are only military projects; the world's nuclear research that can advance mankind is being done in university laboratories with cyclotrons, betatrons, and cosmic

ray particles, because scientists of other nations don't have uranium piles, and American scientists aren't free to use them for pure science researches.

But in the coming years, every nation that wants to have a modern industrial civilization must have atomic research centers. Denying the right to atomic research piles to any nation is the equivalent of denying that nation the right to maintain and staff adequate technical colleges. The technically minded young men and women of any nation of the immediate future will have to have access to adequate atomic research facilities, including, of course, the one indispensable research facility—an atomic pile.

Beyond any possible argument, the United States today has the greatest group of the most advanced nuclear physicists on Earth. A fact relatively few people appreciate is that, until 1933, there were practically no nuclear research tools available, and therefore practically none of the youngsters entering college were sufficiently interested in or attracted by nuclear physics to study it as a career. The nuclear physicists who began their studies with that particular subject in mind before 1932 are few indeed; the rush into the field did not begin until 1933, because of the tremendous discoveries of the preceding year. During 1932, the positron, the neutron, the cyclotron, and artificial radioactivity all came into the field; nuclear physics opened up.

A freshman in 1933 graduated with a B.S. in 1937, would get his Master's in 1939, and his Doctor's degree in 1940. The Manhattan Project began operations in 1941. Practically all the nuclear physicists graduated in the United States since then have graduated directly into the Manhattan Project. These men and women have, therefore, simply continued their college training in the most advanced, the most perfectly equipped laboratories of nuclear physics on Earth. Obviously, we have a generation of the world's best-trained nuclear physicists—a clear and unmatched lead into the field.

If the atomic piles can be freed for scientific research, for educational use—if necessary under a National Physics Institute, a sort of national technical college—we can maintain that advantage.

To deny any nation the right to atomic research, however, is to force every competent technological mind in that nation to emigrate to some other country which *is* permitted atomic research. The effect would not be immediate: normally, it takes ten to twenty years before the new technical graduates become the controlling executives in their field. Not immediate—but inevitable. The result can only be intellectual starvation and technological decadence.

Atomic piles aren't important industrially just yet. *But they are the essential of today's education for tomorrow's technologists.*

THE EDITOR.



THE TOYMAKER

by Raymond F. Jones

The Imaginos were silly, lumpy little dolls—but the kids were crazy about them. In fact—they were so crazy about them that the destiny of the planet hung on them!

It was a little shop with a narrow front, far down on one of the side streets of Curran City. Horrill Street was one of those insignificant alleys about which the luxury of the city seemed to have grown, like the cheap core of a magnificent pearl. There were few of the city's important, rich, and honored citizens who knew the street was there, much less the little shop with the

narrow front. But the children of Curran City knew both the street and the shop. It was the shop of the Toymaker.

They knew him by no other name. He had asked them simply to call him Mr. Toymaker. They were quite willing to do that for he was certainly the best toymaker in the whole System.

His toys were truly toys. Only

children, and a rare adult with the simple beliefs of a child, could find anything in the little shapeless Imaginos which he sold. To these, however, the ugly figurines came alive and formed a new world where all the adventure and romance dreamed by children of every world could come true. To those who were not children in spirit they were nothing but little, dull, meaningless clods.

The child in magnificent Curran City who did not have a set of the Imaginos was considered pitifully unfortunate by his fellows. The Toymaker had needed only to sell a single set of the fabulous Imaginos and he had no further need of advertising.

Reas Corper, newsman, had sensed a feature story in watching his own ten year old son sit in fascinated worlds of fancy before the images which remained silent, motionless and ugly to Reas himself. They were poorly shaped, carved without skill or imagination, yet they opened the delights of a new world to the boy.

Reas Corper didn't understand it. It made him a little uncomfortable when his son exclaimed in exasperation, "Gee, Dad, all you have to do is believe they walk and talk, and they do!"

Reas had some difficulty in finding the street at first. No one he asked was quite sure where Horrill Street was. But when he finally located it there was no mistaking either the street or the shop. As he neared the small store there was increasingly heavy traffic of chil-

dren afoot and in cars of all descriptions driven by parents who waited austere outside while the children went in to make a selection from the identically unbeautiful Imaginos.

The interior of the shop and its lighting were indifferent. There was certainly little of imagination about the place itself. No touch of decoration lightened the severity of the plain walls and the shelves loaded with thousands of the brightly colored Imaginos. Perhaps it was all deliberately planned to give the poorly shaped little figurines something against which to display their doubtful splendor.

As Reas Corper sauntered into the shop he saw scores of children gathered in excited groups about the various clusters of Imaginos. There were squeals of delight and sharp gasps of breathless wonder as they saw some particularly entrancing specimen—which differed no whit from its fellows, Reas thought.

There were a few puzzled parents standing, like himself, a bit miffed and attempting to appear indifferent, yet secretly puzzled by the thing which the children found so attractive, and which meant nothing whatever to the adults.

Reas moved towards a solitary twelve-year-old who stood open-mouthed before one small grouping.

"Is that a good one?" Reas said abruptly.

The youngster turned as if startled out of a far dream. "Oh, yes! I'd like that one!"

"What's it doing? Tell me it."

"Can't you see, honest, mister?"

Everybody at home says they can't see what fun I get out of these. All anybody has to do is believe."

Reas concentrated on the dough-like masses for a moment. "Just no go, I guess," he said. "When you get to be my age and work as a newsman besides you don't believe in anything any more. I guess that's my trouble. Tell me what they are doing."

"This fellow here is on a pirate vessel in disguise. He's going to capture them all, he hopes, but right now he's in an awful jam because they've found out who he is. I wish I owned the set so I could see how he gets out of it."

Reas laughed. "Here, if you can dream up a yarn like that out of those dough faces you deserve to finish it." He handed the boy enough money to buy the set.

"Oh, thanks, mister. Thanks—!"

Reas' smile turned to bewilderment as he watched the boy scamper away. He turned back to the little Imaginos lining the shelves and walls of the toy shop.

What magical powers did these little figures, carved without obvious skill, possess? You have to believe, the youngster had said. Obviously, Reas was never going to believe these little masses were the dream creatures the children thought them to be, no matter how hard he tried.

He turned back to the shopful of customers, looking for the Toymaker, whom he had come to interview. There were several clerks waiting on the children, but a rather

stooped old man was coming towards him, pleasantly smiling.

"You are finding what you want?" the old man said.

Reas grinned frankly. "I'm not finding anything. Are you the man the kids call Mr. Toymaker?"

"Yes, I am he."

"I'm from the System. So many people have been fascinated by the stories of your little toys that I'd like to find out something about them, and about you. How do they work?"

The Toymaker smiled. "You have to believe. That's all."

"I know. That's what the little fellow over there told me. That's what my own son tells me. But the things still look like nothing but pygmies with pointed heads. I'll never believe they are anything but that."

"That is the trouble with most of us adults. We haven't the courage to believe, as children have."

"But it doesn't seem healthy. It sounds as if the toys are like drugs, inspiring dreams with an unhealthy reality."

"Are dreams unhealthy? Dreams have been the inspiration of genius throughout the history of the race, and our great literature is only the recording of dreams. Without dreams, the race would have perished."

"But what of the effect upon the children? Does the dream persist when they put the Imaginos away?"

"No more than does any vividly written story which they might read."

Reas Corper regarded the old man

closely. Somewhere he had seen that stooped figure before—in quite different surroundings—he was sure of it.

"You look familiar to me," said Reas. "What is your name?"

The old man shrugged. "I've lived all my life in Curran City. You could have seen me before. What I have done before in my life has no significance towards what I am doing now. I prefer to be known only as the Toymaker."

"I know you!" Reas exclaimed as recollection came flooding back. "You are Professor Theorn, Rold Theorn, formerly holding the Chair of Peace at Curran University."

"Yes . . . yes, I was Rold Theorn, Professor of Peace. Now I am only the Toymaker."

"But I don't understand! You were the greatest Professor of Peace the University ever had. Why did you give that up to become proprietor of an obscure little toy shop? Surely there must have been a reason!"

"Yes. There was a reason, all right," said Theorn. "In a warrior world there is no place for a Chair of Peace on the University staff. The subject of Peace is only an academic one in the world of political struggle that constitutes our rulers' chief activity."

"I see. So you resigned in protest and turned your talents to something neutral. Is that it?"

"Something like that," said Theorn.

There was a sudden commotion in front of the store as a luxurious

car pulled up and two figures stepped out.

"Callimus, the Senator!" Reas exclaimed. "You really do get the customers down here, don't you? They say he'll be in the presidency next year. With his son recommending the Imaginos you shouldn't have any trouble boosting your sales."

Theorn, the toymaker, scurried towards the door. "Welcome," he said to Callimus, and Derrold, his ten year old son. "The Toyshop is honored by your patronage."

Callimus glanced disdainfully about the plain room. "My son has heard of the toys you sell. We should like to look at some. Show us the best that you have."

Theorn glanced down at the sharp, sensitive features of the boy. "Yes," he said thoughtfully, "I have just the set for you."

He moved towards a counter at the rear of the store. His distinguished customers followed into the shadowy dimness.

"Something military perhaps?" suggested Theorn.

"By all means!" said Callimus. "What else is fit for toys for a red-blooded boy?"

Theorn caught a fleeting glimpse of the boy's eyes, appealing to him intently. Military, Theorn thought—the boy had the face of a poet. From his mother, so it was said.

"This is the finest set of Imaginos that I have," said Theorn as he lifted a large box from beneath the counter. "I had hoped that it might grace such a household as yours."

Dramatically, he raised the lid

and let it drop back upon the counter. The boy, Derrold, gave a sharp gasp of surprise and pleasure. "It's wonderful! May I have it, Father?"

Callimus gave a snort of disgust and exasperation. "Have what? What are those things? I see nothing but shapeless lumps vaguely resembling people and houses. This is absurd. Is that all you have, Toymaker?"

Theorn turned to Derrold. "What do you see?"

"I see a city," said the boy. "A beautiful city. My friends live there. They are building an enormous building, but they need help with it. I could help them and show them what they need. There is a great pit from which they are taking materials for their city and their buildings. Around the city are gardens—Oh, father! I want this one!"

"This is the craziest thing I ever heard of. I thought you said you had something military, Toymaker."

"Look again," said Theorn. "What are they building for?"

"A war," said Derrold slowly. "A great war. The greatest that the universe has ever seen. They must build to fight and defend. What will they do, Mr. Toymaker? I'm afraid—but I must have this one. My friends are there!"

Theorn looked up into the face of Callimus. "It will teach him much about the tactics and ways of war," he said. "It's the most military outfit that I have."

Callimus looked at the shapeless silvered figures. There in the dim-

ness they glistened in a ghostly, curiously frightening manner. All of a sudden he wanted to hurl them away and be out of this shop of the mad Toymaker. But that was silly to consider such wild impulses. He was just nervous from the strain of the tense political situation.

"We'll take it," he said abruptly. "The thing is totally absurd, but as long as the boy makes something out of it it's all right with me. Wrap it up."

Reas Corper, watching from a little distance, glimpsed the silver figurines and felt something of the same weird menace that troubled Callimus, though he would never have guessed that anything could cause an emotion within the stiff faced Senate leader.

As the pair of figures left through the front door and got into the limousine again, Reas spoke to the Toymaker. "I think that one of these days you are going to have to explain exactly how these little gimcracks of yours operate," he said thoughtfully. The limousine was drifting out of sight around the distant corner.

"It's so simple," said Theorn. "So simple—all you have to do is believe."

Family affairs were quickly forgotten by Callimus, however, as he left Derrold at the estate and drove swiftly to the Capitol where an important meeting with the delegation from Medral, the sixth planet of the System, was to be held—a meeting that might determine whether the future would be con-

sumed in the flames of decimating, interplanetary war or spent in the ways of peace. Callimus was not hopeful for peace. The Medralians were not creatures of peaceful ways.

The leader hurried into the chambers where he presided as head of the important Security Committee, a group whose activities extended like fine, invisible threads into almost every activity of the government. By selection of definitions, they could bring almost any activity under their province, and thus they became the most powerful of the subgroups within the government network, and Callimus was the most powerful figure in the legislative body, so that his name was often spoken in connection with the presidency, for the incumbent president was old and too weak to lead a world at war.

With the appearance of Callimus, the hubbub in the committee chamber died away and the members took their seats. Callimus moved quickly to his place and glanced around.

"The Medralian delegation—where are they?" he demanded.

A short, informal appearing individual, whom Callimus had not noticed at the other end of the table, raised a hand. "I'm it. Singhor, special delegate from Medral. I'm ready to go to work."

Callimus flushed as if he'd been slapped. "You mean that your government has sent only a single delegate to discuss a matter that may determine whether war or peace is to exist?"

"How many more are necessary, as long as I am authorized to make decisions and agreements?" A sudden, impolite grin came to his lips. "Besides, with only one of us to convince, you'll have a better chance of getting your way. We Medralians are noted as a very stubborn race."

With sternly set jaw, Callimus said, "Our only concern is that your government be bound by your decisions."

"We are noted also for our unanimity of opinion. But let's get down to business. You called this meeting. What's it all about?"

Callimus would never grow accustomed to the Medralian manner of conducting themselves, he thought. There was no sense of formality on even the most solemn occasions. Upon the eve of war, as the Medralians well knew, they sent only a single, politically incompetent delegate. Yet Callimus supposed he was no more incompetent than the rest of his race. The population of Medral was still in political childhood. It was obvious from the fact that during the entire history of the planet they had been the only single, unified nation with scarcely a hint of revolution.

Such a condition did not come about spontaneously among peoples strong in national feelings and mature politically. It came only after long centuries of struggle. It had to be fought for as Jemal had fought so long and bitterly until at last glorious planetary unity had been obtained. And now Jemal could go on until System-wide unity had

been obtained, but until that time a benevolent supervision of the activities of the less mature peoples would have to be maintained. The Medralians required the closest watching.

Callimus regarded the single delegate bitterly. It would be long before unity with such politically crude and childish peoples could be obtained.

"We called you specifically regarding the deposits of *schecormium* over which Medral holds custody. You are charged with having permitted extragalactic trade in this material. We have many times made our position clear in the matter. Dispersion of our natural resources cannot be permitted."

"There's plenty of the stuff for everybody."

"You forget that Jemal has none, that we are completely dependent upon the Medralian supply. It is quite necessary to our defense forces."

"First of all, you can trust us to supply all you need; secondly, you worry entirely too much about defense forces."

"It is necessary to be concerned about defense forces," said Callimus, "when we are forced to bargain for the necessities of our very existence with incompetent and immature peoples who have no comprehension of their true relationship to their neighbors and to the universe. This *schecormium* matter is only the immediate cause of differences between our peoples, as you are well aware, Singhor. Consist-

ently, you have refused to recognize our efforts to preserve and protect the sovereignty of our system. To us, automatically, falls the task of safeguarding the integrity of our six worlds. There must be unity among us. It is the duty of Jemal to enforce that unity, yet Medral has refused time and again to recognize the need for it. The time has come when it is necessary to impress that need upon your minds—by force, if necessary."

The envoy from Medral looked at them soberly. "You speak strangely—you talk of unity and force within the same breath. I think a stranger from another galaxy would think you quite mad. It is almost completely impossible for us of Medral to understand you. Nevertheless, this force, this war which you threaten is not of our choice. We will do anything within reason to avoid it. We will assure you all the *schecormium* for which you have need. We will even allow you to strut about the universe posing as masters and guardians of the six planets as long as you like, but there are certain things we cannot do.

"We cannot allow your continual poking and interference in our scientific affairs. We will not report to your Commission every scientific item which might have a bearing upon the so-called 'security' of the System. We will not contribute to the maintenance of the policing of the boundaries of the System, and we will continue to trade with whom we wish and in what commodities we choose. You

should know that our culture is scientifically superior to yours. If aggression is threatened we are far more competent to deal with it than are you. Likewise, if Jemal becomes the aggressor we feel able to deal with your threatened war, though we are aware that such a course would inevitably destroy most of the civilization of both worlds. We know that you have large forces and great weapons, many of them developed by us and turned from peaceful to military uses by you.

"It is inconceivable to us that there should be cause for war, but then the history of other worlds and other systems shows that generally, war has no 'cause'."

"You are politically and socially incompetent to be the judge of such matters," said Callimus. "You are like children playing amid great and dangerous forces of which you have no conception. Though you have agile minds in the field of science and technology, you have no adequate political concepts which, after all, form the governing standards which must always control the technical advances of a civilization.

"With regard to the *schecormian* question: It is obvious that it is of great value to those extragalactic traders who have come so far to find it. Without doubt it plays an important part in their own military program, and, therefore, they would be quite willing to establish a program of aggression to insure continued supply of the material. Do you understand that?"

"No. We have analyzed the motives and purposes of our customers. We find them completely innocuous. We trust them."

"We must submit, then, our ultimatum in the matter," said Callimus with gravity. "We hereby formally demand, by virtue of our right as protectors of the System, that your extragalactic trade in *schecormians* cease. Convey this decision of the Security Committee to your people. If appeal is desired, you may present it in proper form."

Singhor looked at the stern faced circle of committeemen as if trying to comprehend the weird workings of their minds.

"I'm afraid we don't know the proper form," he said. "I'm quite sure that we don't."

When Singhor had left, Callimus looked at his fellow committeemen. His lean face was hard and his black eyes cold.

"We must not deceive ourselves," he said. "The gravity of this situation is extreme. The Medralians have probably brought to us the first intergalactic war in which we have engaged. These creatures who have been obtaining *schecormians* from Medral will not willingly see their supply cut off, yet our own national safety demands that we secure the available resources of this material to ourselves. There is no other alternative.

"We should have taken steps long ago to suppress the rebellious attitude of Medral. If we had done it when I first proposed that we do so, we would not be faced now

with such a crisis. There cannot be excuse now for delaying action."

One by one, he looked into the faces of the committeemen surrounding the table. He saw there only grave assent.

"Good," he said. "I am glad to see that we are agreed now—even though somewhat belatedly. It should be obvious by now to every thinking, politically mature individual that our System is not large enough to hold two races such as ours and that of Medral. Like an irresponsible child, Medral must be brought into line and shown that she cannot go on her way, ignoring the needs and welfare of the System, of the older and more competent races who would gladly display the necessary leadership in showing her the way to maturity.

"We must recommend that steps to declare war be initiated at once!"

As Reas Corper saw the first news dispatches on the conference come into the office, he thought of the dingy little shop on Horrill Street where a tired and frustrated old man who had made a lifetime career of studying and teaching the methods of insuring peace between races had turned his back upon that vain dream in order to give greater and more glorious dreams to the children of Jemal. Reas wondered what Professor Theorn was thinking as he heard the belligerent and self-righteous announcement that Jemal's security was being threatened by the intergalactic trade in *schecorwism* which Medral was inviting.

Theorn would recognize it for the war-inspiring propaganda that it was, perhaps shrug resignedly, and go back to his weird toys that were only for the eyes of childhood. Reas thought of those toys—what strange powers they had! If only they could be made available to every man so that the dreams of his childhood might come back again!

Theorn's failure was not his own, Reas thought. He remembered at the time of the professor's resignation the classes in Peace were almost unknown to the majority of the students at Curran's great university. It was not felt that the citizens of a great planet like Jemal, whose peoples had risen to might through their bloody struggles with each other, had need of knowledge in the ways of inspiring and preserving peace. The great military traditions of the unified nations of Jemal would speak for themselves. Theorn's classes, therefore, held only scant three or four of pupils when he decided to abandon his career.

Though there were a few in every city like Theorn and Reas who regarded the propaganda of Callimus for what it was, the majority of the populace were incensed by the stories of Medral's obdurate stupidity.

It was well known that *schecorwism* was wholly essential to the industrial and military life of the planets in the System. Most people had long believed that more rigid control over the deposits upon Medral should be provided, but only a token administrative guard

had been provided. Now that the Medralians were undertaking to dispense the material to other creatures outside the System there was no excuse for not confiscating the deposits.

There had always been an almost subconscious feeling that the System was not large enough to hold both Medral and Jemal. No one knew just why it prevailed. Perhaps it was because so little was known of the Medralians. They offered only bare hospitality to visitors, and no invitations to return. They displayed no desire to cooperate, refused to take part in all treaty negotiations, yet offered freely for sale or trade the resources of their world that they had in surplus, and such artifacts as they chose to exhibit. Politically, their world was of such utter simplicity that it was incomprehensible to Jemal. There was literally no central government. The acts of every man seemed completely in accord with some unwritten, unspoken code of rules which seemed to be comprehended and rigorously observed from the moment of birth.

It was somehow alien, unhealthy, and disturbing to the Jemalians, whose own record of blood and conflict in the establishment of strong unification and central government was very long indeed.

So it was perhaps this feeling of utter political alienness, between two races so biologically similar, that inspired the sense of inevitability concerning the conflict that all Jemal knew would break soon.

In the living room of his mansion Callimus heard the news of the public reaction with satisfaction. He knew the belligerence index of Jemal to Medral was high enough that a relatively small amount of propaganda would suffice to assure popular support of the war upon Medral.

Derrold, the son of Callimus, was in the opposite end of the room with the silvered Imaginos spread out in meaningless configurations on top of a table. He was apparently paying no attention to the words of the news speaker, but he could not help hearing the ominous message. He continued, however, in the silent abstraction of his regard of the Imaginos.

Callimus watched, puzzled, dismayed, and just a little frightened. He'd had great dreams for his son, but Derrold inclined to fulfill few of them. Callimus had dreamed of him as a great military and political leader, but Derrold was becoming a poet and a dreamer like his mother.

The set of toys bought from the Toymaker were stupid and absurd things, Callimus thought. For hours Derrold sat immobile, staring at the clumsy figurines, dreaming over them. Callimus wondered what strange thoughts were passing through the boy's mind, but it was as if he were behind a closed door through which Callimus could not enter.

Derrold should be taking an interest in the affairs of government. He was not too young to be showing some comprehension of such

matters, yet he seemed to be aware of nothing now but the dream world in which he moved.

Callimus moved towards the other end of the room and sat down by the table. "Did you know that there is about to be a war between our world and Medral, Derrold? We are being forced to fight for our security and liberty."

"I heard the news. I guessed what it meant."

"You have a wonderful opportunity to make a study of this situation and the ways in which we shall destroy the menace of Medral. It will be of great value to you when you enter upon your military schooling next year."

Derrold suddenly flung his head down against his arms on the table and burst into tears. "What do I care for all of that? My friend is dead! My friends fought with each other and Rane is dead!"

"What in the world are you talking about?" Callimus demanded. "Who is Rane?"

In wild, hysterical anger Derrold raised his head and pointed towards one of the inanimate figurines. "He's there . . . and you can't even see him! Boro"—he pointed to another of the images—"killed him!"

"Of all the insane nonsense!" Callimus flung his arm out and swept the Imaginos to the floor. He shook Derrold by the arm and shoved him roughly towards the stairway.

"Go up to bed and forget this foolishness! Tomorrow we'll make arrangements for your transfer to

military at once. That should straighten out some of these quirks in your brain."

Sobbing, the boy lunged half blindly towards the stairway and climbed to his room. Callimus remained at the table. Little white spots appeared on his cheeks from the fury of his anger. His eyes finally came to rest upon the vision of the scattered Imaginos lying upon the thick carpet. Savagely, he jabbed towards one with his heel and ground the fragile thing into white powder. There would be no more nonsense about those things. He wondered if he should have the Toymaker arrested and investigated. There was no telling what kind of harm these toys might do to young minds. Yet there really couldn't be anything to the toys. It was all the children's imagination, which was being overactivated by the suggestions of the Toymaker.

Nearby, Theis, his wife and the mother of Derrold, half rose from her chair in silent protest, then sank back before the white fury that lay upon her husband's face. She could not see Derrold sent to the military school yet without struggling for at least another year of freedom for him, but now was not the time.

Callimus moved to an adjacent alcove where dozens of lines and private communication channels were available to obtain reports from all over the planet. He sat down and began manipulating the buttons, calling the government observation posts for an estimate of

the effectiveness of their first step in the propaganda campaign.

The screen lighted as he contacted the first observer.

"Index of antagonism with respect to Medral, please."

The operator scanned an index machine and looked up. "It's four point six—up from two point four."

"Thank you."

The image disappeared and was replaced.

"Five point one."

Another. "Three point eight."

"Six point nine."

One by one they came in, critical indexes varying by city areas and the social and economic conditions of their inhabitants, but every section showed a rise—a substantial rise, one that would permit a direct declaration of war against Medral within days, Callimus told himself confidently.

The people wanted war. They should have war, and the man who fought hardest to bring it about and insure the quick destruction of their incompatible neighbors would surely be the next president—Callimus himself.

He switched off and returned to the living room. "The reaction is fine," he said to Theis. "We shall be able to declare war within four or five days at the most."

"Why?" she said softly. "Why must war be declared? Is there no way that peace can be maintained? Is there no way that we can live peacefully with Medral?"

He laughed pleasantly now as he took her arm and led her toward the stairs. "Don't try to worry your



head about such details of politics, my beautiful Theis. You never did comprehend such complex things. I love you for it—but our son must not be like you in those things. You heard my decision that he must be sent away to the military. I hope

you will not interfere with my plans for him. I have thought in times past that you objected to my programs for him; there must be no interference in this."

"Of course not. Haven't I always trusted your judgment?"

"Not always, I'm afraid, my dear."

It was sometime in the middle of the night—he didn't know just when. He awoke with a sharp and sudden sense of loss, or perhaps it might have been a noise somewhere in the well-guarded house. He didn't know what impulse possessed him, but he rose from his bed and slipped quietly through the darkened hall and down the stairs.

As he approached the living room there was an almost overpowering sense of something alien within the room. He had no idea what it might be but it was like the emanation from some tired, frenzied, and frantic mind made tangible to his senses.

In sudden anger at his imagination, he snapped the lights on, flooding the room with soft glow.

There, before him at the table where he had sat earlier, was Derrold. On the table were the Imaginos, arranged as previously.

The boy sat staring as if seeing some vision far beyond the ability of Callimus and other men to witness. *And he had been sitting that way in the darkness before the lights came on.*

"Derrold!" Callimus advanced slowly, ominous anger in his voice. "What are you doing out of bed?"

I forbade you ever to have those things again. You have disobeyed me!"

His arm raised suddenly, whether to strike or to sweep away the game pieces again, Derrold never knew. But, as he dodged, the voice of his mother sounded sharply from the foot of the stairs.

"Call! Don't you dare strike that boy!"

Derrold looked up at the sound of her voice, as if coming out of a trance. It was the first time in his life that he had ever heard her raise her voice in anger to his father, but now she came towards them defiantly and in rage at Callimus' threat.

"You leave him alone," she said quietly, and somehow, Callimus shrank and his anger waned before her quiet demand. "There's something wrong here—something terribly wrong."

She turned to her son. "What is it, Derrold?"

"They're beginning to fight now," he said dully. "My friends have divided up into two nations and now they are preparing for a great war. Already they have killed many. Rane and Boro were the greatest men and two of my best friends. I've begged Boro to stop the conflict, and I asked him why he killed Rane. He said Rane would have killed him if he hadn't. He says that nothing can stop the battles, except us."

"Except us? What does he mean?" This asked gently.

"Us! All of us. He says that unless we stop our fighting they

will have to go on until they destroy each other. There's nothing else that can prevent their war."

"You mean that if Jemal and Medral became peaceful that your little friends would end their war?"

"Yes! Why must the war be fought? Can't some way be found to avoid it? Then my friends, the Sackes and the Brams would not fight."

Theis looked at her son tenderly, sympathy filling her at the sight of his agonized, tear-stained face. "Not tonight, anyway," she said. "Nothing can be done tonight. Go up to bed now. Tomorrow we will see what is to be done."

Slowly, with a last despairing glance at the crude figurines, Derrold rose and moved up the stairway.

When he was gone, Theis slumped into a chair. "I don't understand the great affairs of war and politics," she said bitterly, "but I understand what they have done to our son."

"It's these infernal Imaginos," Callimus said fiercely. He picked one up and crushed it in his hand. "I'll have that Toymaker arrested and thrown in jail for the rest of his life for this!"

"What's that got to do with it? Are you going to blame these harmless toys for the delusions and mental breakdown your own ambitions have brought to Derrold? Surely you haven't lost all your reason. The boy is sick. We've got to get him to a psychiatrist as soon as possible in the morning.

These fears will destroy him if they aren't removed."

Uncertainly, Callimus looked at the silvered fragments in his hand and watched them drop to the floor in a shower of white dust. There was something here that he knew he must fight, but it was an opponent that couldn't be seen or identified, and that brought a maddening frustration to Callimus.

With the return of daylight, Callimus felt as if he had been through a sleepless period of nightmares—but nothing more than nightmares.

The fears and mental aberrations of his son Derrold seemed remote and of not very great consequence. He knew that children frequently suffered such delusions. He grew quite cheerful as he left for the Capitol.

He said to Theis, "Call me as soon as the doctor has given his report. I'm sure he'll find a quick remedy. We'll do whatever he finds necessary. Derrold is sure to be able to enter the military on time."

Theis said nothing, but merely nodded acquiescence to his request. As his car moved silently away through the luxurious gardens of the estate, Theis had a fleeting thought, a moment of wondering just which one was living in a world of illusion. How was it possible for a man to be cheerful on a morning when he was moving to tear down the world?

Up to now, the token guards at the *schecormium* pits on Medral had been instructed to make no attempt to prevent the loading of the

extragalactic ships of Medral's customers. Now, as he returned to the office, Callimus sent out an order to the guards to resist the loading of the next vessel. He suspected that it would mean the instant annihilation of the few guards, but that was the point. Such a massacre would be the next incident in his campaign. It might of itself be sufficient for a flat declaration against Medral.

Circumstances were fortuitous for his plans.

The captain of the guards, to whom Callimus spoke over the secret diplomatic channels, was doubtful.

"There's a one hundred thousand ion freighter preparing to land for a shipment right now. I don't know just what force either the Medralians or the Calorx will show if we order the loading stopped. We have little resources available to put up a fight."

"We know that," said Callimus. "Nevertheless, the Security Committee has ruled that shipments of *schecornium* outside our System must be halted at once. Forbid the loading in the name of the Security Committee. If your forces are insufficient, it will not be a decisive matter, but reinforcements will be sent. The Medralian government has received our demands that shipments cease. You are to enforce these demands at once."

The captain of the guards looked at Callimus for a long moment with set lips and bleak eyes. He knew that Callimus had deliberately and impersonally sentenced himself and

his fellow guards to death for the sake of political stratagem.

He said, "We'll do our best, sir," and waited for Callimus to break off.

The early news reports carried word of the resistance that was to be made. From the observers throughout Curran City and other great metropolitan centers of the planet came word of the passionate excitement that reigned as the news went out. Every citizen of Jemal knew what it meant—knew that if Medral opposed the guards it would be the duty of Jemal to declare war at once to preserve her own honor and security.

Reas Corper covered the story as the dispatches came out of the official capitol news dispensary. He digested the reports and wrote his commentary. There was little to write that was not known by every citizen already. Everyone knew that the tense situation was building up to certain war. He wondered almost why Callimus was stalling around, why he didn't go ahead and start it. Surely the index of antagonism was high enough by now.

He wrote the story mechanically and fed it to the wires. He wondered about going down to the little toyshop of Rold Theora. Somehow, he felt that a talk with the disillusioned peacemaker would do him good. An interview and commentary since active baiting of Medral had begun ought to make a good story, yet his previous interview had not been written up even. Some-

how it seemed to Reas that the use of the old professor's name would be sacrilege in times like the present. Mention of his name would bring only hisses in a world so geared to offensive preparations. He decided to let the story go—but he felt like seeing Theorn and the simple little toyshop again.

He wondered if there were perhaps others like himself—and Theorn—who regarded the approaching conflict with dread and a fervent wish that somehow it would be averted. He didn't know; he knew only that such thoughts were near treason.

He was about to leave his desk when a call came abruptly from his home. It was Eolana, his wife. Her frantic voice was hardly intelligible.

"It's Borren," she cried. "He's ill. I've called the doctor and he says our son must have psychiatric treatment at once. Reas, can you come home? I don't know what to do."

Reas Corper stared at her frenzied face. The thought of injury or illness to Borren, their only son, made him sick within himself. Why, Borren had always been in perfect health since he was an infant. Nothing could be seriously wrong—not to his mind!

"I'll be right home," said Reas. "Better call the psychiatrist to find out what's wrong. How does Borren act?"

"He has hysterical illusions about these stupid toys, the Imaginos. He thinks they're alive and real, and he's frantic because he thinks they're

fighting each other. He was so hysterical I had to put him to bed. Please hurry home. I can't stop his crying."

She cut off and Reas continued to stare at the gray plate.

The Imaginos!

Reas Corper's mind was suddenly swarming with confusion. What did the toys of Rold Theorn have to do with this? Borren thought they were real, Eolana had said, but there was nothing unusual in that. That was the way the Imaginos were supposed to work. There was nothing wrong with that. Or was there? Reas remembered the times when he had stared at the silly little figurines with their stupid dough faces while Borren had described the fantastic adventures he saw. Was it entirely healthy in spite of Rold Theorn's assurances? What created the illusions that all the children vowed were real?

He didn't know. He just didn't know what to do about anything, he thought, as he hurried from the news building. The world was collapsing about peoples' heads and they were welcoming the destruction with an ecstatic joy. The news of the order to the guards on Medral had reached the street and the reaction was almost hysteric. It sickened him. This was happening, and in his own house disaster equally furious had struck. But there would be a cure, he told himself. Borren would be all right. He had to be. There would be nothing for Reas and Eolana to live for if anything happened to the child.

Alone in his office high up in the massive block of the capitol building, Callimus waited impatiently, scanning the reports from the observers. He noted the index was already up to an average of six and four tenths. As soon as it reached seven and three it would be adequate for a war declaration. Callimus knew that without doubt it would reach that point when the guards were killed for their intervention in the loading of the alien ship.

But, as he waited and the afternoon waned forecasting the coming of night, his mind kept swinging back to the incidents of the previous night and somehow he dreaded the outcome of the examination which his son, Derrold, must have undergone by now. Why hadn't Theis called? Waiting for the observers' reports was nerve racking enough without having to wait for a report on the affairs of his household.

He called Theis. She answered almost at once. Her eyes were dry but showed the obvious signs of recent tears.

"Did you have the psychiatrist?" Callimus demanded. "What is the trouble?"

"The doctor was here," Theis answered. "He was not quite sure what the exact trouble is, but he feels sure of the cause."

"Why didn't you call me as soon as you knew? What is the cause?"

"I was afraid your great affairs of State could not be interrupted when it is merely a question of

your son's health—and that of hundreds of other sons."

"Theis! You're talking nonsense! What is it all about? I haven't—"

"—time to waste? No, of course you haven't time to waste. You are so busy getting the world ready for death. The trouble with your son, if you must know, is simply hysteria brought on by the imminence of war. And Derrold is not alone in suffering from the destruction you have begun. The doctor says that several hundred similar cases have developed in Curran City in the last day in children under twelve. It seems they have been taught so effectively the meaning of war and the certainty of their participation in it that their minds have simply cracked under the strain of the present situation. The world of illusion into which they have sought escape has proved to be a trap for them. I suggested removing the Imaginos, but the doctor said to let them remain as an outlet which might prove healthy in the end. Proper analyses have not been made, but the cases are almost sure psychoses in most instances. Many of them can never be cured, perhaps. That is what you have accomplished thus far for Jemal!"

Only for an instant was Callimus taken aback by her outburst. He had never been accustomed to taking the opinion of the beautiful Theis as any basis for serious action, and this was certainly not the time to begin.

"There must be another answer, Theis. You are becoming hysteri-

cal yourself. We'll have the best psychiatrists on Jemal and find the right answer to this thing. But take those idiotic Imaginos away from Derrold. Somehow, I suspect that they are more than a little responsible for all of this."

"The doctor insisted it would be dangerous at this stage. He made it very definite that we should not do that until he gave us instructions to do so."

"I say take them away from him!"

This looked at him a moment with expressionless eyes, then abruptly cut off. Startled, Callimus tried to call back but she refused to answer.

He swore fervently to himself. What was going wrong with things all of a sudden? This had always been almost docile, constantly agreeable to his every suggestion. Now she was becoming almost shrewish. He cursed the fates and circumstances that had brought these difficulties just as the Security Committee was preparing the planet for its war of destiny.

And there was that other, highly disturbing aspect of the matter. Several hundred other similar cases, This had said, and the fool doctors were blaming it on the war tension. If that kept up, the people's fervor would relax. He'd have to have the doctors warned to keep their diagnoses to themselves if such cases kept recurring.

It was almost dusk when the door opened suddenly and a visitor

was announced. Callimus stared as the man entered his office. It was the captain of the guards with whom he had spoken that morning.

"How did you get here?" Callimus demanded. "Didn't you carry out my orders?"

"We attempted it according to your instructions, sir. As I suggested, however, our forces were insufficient. We were not harmed. We were simply taken prisoner and brought to Jemal. I was to give you the message that the guard will no longer be tolerated upon Medral, but that your orders for *schecor-sium* will be filled in any desired amounts as in the past. The same goes for all other customers."

Callimus frowned. He had been sure of much more violent action than this. This event would have a much lower index value than the killing of the guards would have had, but perhaps it would be adequate.

"Very well," Callimus dismissed the guard abruptly. "You did your best under the circumstances. That will be all."

The captain bowed out, and Callimus was left alone. Immediately he called the government news room. "Special dispatch to prepare for all casters," he said. He then gave the facts of the Medralian ousting of the Security guards. "Give it the highest possible belligerence index, and issue in verbatim status only."

This would milk the incident for all possible advantage. The writers in the dispatch room would put the

story together using words of the highest possible semantic content of belligerency. By morning he would know the answer, whether the total index of the planet's populace was great enough for a war declaration.

He answered calls, signed papers, and made other decisions, and gradually the day's business came to an end. The darkness of early winter night impregnated the city, and seemed to flow through the cells of his own mind.

He dreaded to meet the thing that had come into his own house, his child with a sick mind, This grown so suddenly bitter and accusing. While he schemed and struggled for the glory and greatness of Jemal it seemed as if his own personal world were falling apart. His dreams for Derrold had been great ones, dreams of might and leadership, but he knew within himself when he ceased evading the truth, that the boy had neither the form nor the soul for political or military might. Perhaps a poet or a scientist, but nothing more.

Callimus went out into the dreary city night where cold winds and fog wraiths battled for furious mastery.

When he reached home it was as if the essence of the bitter night were congealed in the atmosphere of the house. Lights burned at scattered intervals throughout the rooms, but only the maid approached as he called.

"Your wife is in Master Derrold's bedroom," she said. "They

have both been in there all afternoon and I have heard them crying for hours, but they refuse to answer or to open when I knock. I'm afraid for them—"

Callimus flung away his hat and cloak and hurried up the stairs. Even as he reached the upper hall he could hear the muffled sounds coming from behind the closed door of Derrold's room. He rushed towards it and flung it open.

Lying under the covers, one arm over his face, was Derrold. This was huddled face down across the lower corner of the bed.

Between them lay the insensate forms of the Imaginos!

The sight of those objects struck the fuel of rage in his mind into a flaming inferno. He swept the figurines to the floor and stamped upon one until there was only the white dust of the inert material spotting the carpet.

But with his first motion, This uttered a scream of rage and defiance. "Don't you dare destroy them, you—*madman!*"

She rose up from the bed and faced him with such an expression in her eyes that he shrank away from her.

"This," he said quietly at last. "have you gone insane, too?"

"Insane?" Her short laugh was harsh. "You talk about us and insanity—and you destroy the Imaginos!"

"So they've got you, too! I was right. There is something about

those hellish things that has made Derrold—and you—this way, and I'm going to find what it is if I have to scour the planet for the secret of it."

"You would not say that if you had seen them alive and struggling and killing each other—because of us, because of you. They're real, they're alive, but they can only be seen by the eyes of those who are willing to believe. Derrold showed me the way to believe in them, and this afternoon I saw for the first time what he had been seeing. I saw them fighting and killing each other, destroying their wonderful cities and towns—and I heard them calling and pleading for us to build peace that they might once again live in happiness together."

"Who was the psychiatrist you had here today? I want to talk to him—about Derrold."

"Dr. Tarro. I wish you would bring him here. Perhaps it would help bring you to your senses."

Suddenly Derrold threw back his arm and looked at Callimus as if aware of his presence for the first time. "Will there be peace, Father? We must have peace. My friends want us to not fight so that they can be friends with each other again."

"You don't understand these things, Derrold," said Callimus with surprising tenderness. "We'll find a way to make things right for your friends."

He left and went downstairs to call Dr. Tarro. The psychiatrist promised to come over at once in

view of Theirs' sudden aberrations. He refused to comment or give any opinion until he arrived.

As he broke the connection and Callimus was once more alone, the silence closed in tightly about him and he had the urgent desire to fight it off like some smothering cloak.

Then he remembered the observers' reports. There should be something available by now. He called the central reporting station.

"Senator Callimus," he said. "The belligerency index Jemal to Medral, please."

"The over-all average is now five point eight. The individual—"

"Five eight!" Callimus exploded. "There must be some mistake. This morning it was six four. Check your figures again!"

"I'll do that. It is a mathematical impossibility, however, for there to be any error in the methods we use."

Callimus knew that. As he hung up he thought, there is no error. Some new factor had completely neutralized the effect of the Medralian expulsion of the Security guards and even lowered the index from its previous value. With a receding index it would be disastrous to begin an offensive.

What new factor had been introduced?

It seemed incredible that something powerful enough to lower the index that much could have appeared and come into play without his awareness of it.

He was still pondering the prob-

lem when the annunciator indicated the arrival of Dr. Tarro.

The psychiatrist looked haggard. "May I see the patients?" he asked at once. "I have very little time."

"I want to talk to you a moment," said Callimus. "You saw my son, Derrold, this morning, but I didn't hear your diagnosis except what my wife had to tell, and she was not very rational. Now, since I have come home, I have found her in the same state as my son. They both have the delusions about the reality of those stupid toys, the Imaginos. My wife repeats the story of their pleading for peace so that they can stop fighting. What is the cause of such illusions?"

The psychiatrist looked at him from beneath deep brows, as if not quite daring to speak his mind. "Hysteria," he said at last. "War hysteria brought on by the tension of the present political situation. For years we have lived in dread of what an interplanetary war would mean, yet we have known it was coming. Now, the present slow buildup to war potential is the force sufficient to crack the last restraints against escape into illusion. Since the beginning of the recent crop of incidents there have been over four thousand similar cases among the children of Curran City. Reports from other places indicate similar conditions. It appears to be the children who are suffering most."

Four thousand, Callimus thought. Here was the factor he had over-

looked. This was the cause of the changed belligerency index. Four thousand families whose children were stricken with hysteria and pleading for peace!

"Do all these children have sets of the Imaginos?" Callimus demanded.

Dr. Tarro shrugged. "What child in Curran City doesn't have one of them? There is probably one in three fourths of the homes on the planet."

"I think they are responsible for this trouble. There's something wholly malicious and unfathomable about those things."

"No—only indirectly. They might be likened perhaps to the objects used to obtain concentration in some methods of hypnotism, but I've examined the Imaginos before, merely out of curiosity. There's absolutely nothing there but inert masses that appear to be some sort of plaster composition.

"No. This whole thing is a result of the war fears in people's minds. It is only coincidental, I am sure, that the children have linked it with the Imaginos. Since it is the case, however, I am letting them keep the toys. To remove them and attempt to suppress the symptoms would be worse than letting them run their course for a time. Only by keeping all factors present can proper therapy be worked out."

"You say it is only the children who have been affected, but I told you of my wife's exception to that."

"That may enable us to throw

some more light on the methods of therapy we shall be able to use, provided she is able to make any intelligent effort to assist us."

"I am afraid she is not able to do that," said Callimus.

They mounted the stairs and moved towards the room where Theis and Derrold remained. There were no tears now, only a sullen, desperate resignation upon the faces of the two.

Dr. Tarro said down and spoke kindly. At first Callimus listened intently to the questions and to the answers given by Theis and Derrold. But there was nothing new, only the same desperate story that Callimus already knew.

As he sat there he watched the tense face of Theis, his wife. He remembered how it had been when he first loved her long ago for her poetic, ingenuous nature and her quiet beauty. For so many years now he seemed to have forgotten that first magic, and she had merely lived in his house and been the mother of his son while he went his lone way dreaming of great victories in the world of politics and government that would bring power and fame to Jemal and to himself and to his son.

But Theis had not gone along with him. She had remained merely the beautiful, the poetic Theis. He had been forced to choose, and the choice of his governmental career had been a wise one, of course, for it represented all that was truly important to a man. But he wondered now

why he couldn't have had both instead of only one of the alternatives.

Suddenly he realized that Dr. Tarro was leaving. Nothing had been accomplished. These men of science were witless in an emergency, he thought. The city, the entire planet was being swerved from its course of destiny by these illusions of its children, and the psychiatrists could do nothing but ask meaningless questions. Callimus was suddenly irritated to the point where he could hardly endure the lingering, patronizing final admonitions and reassurances of the psychiatrist.

When he finally said goodnight to the doctor it was not late, but he decided to go to bed. He felt exhausted by the tensions of the day, and there were many more such days to follow. He had come to no conclusion as to what policy the Security Committee should adopt in the present crisis. Something would have to be done to overcome the effects of this hysteria, but what it would be he did not know.

When he entered their room, Theis was there—and she had on the night table beside the bed the Imaginos. Their ugly, misshapen forms glowed ghoulishly under the dim light of the room.

In sudden, unexpected tenderness brought on perhaps by his earlier mood, Callimus moved towards the bed and sat down. "Tell me what you see there," he said softly.

"I see two peoples who once were

one," she said, her eyes trance-like. "I see homes where fear reigns and men are torn from their work and their families in mad preparations for a war whose cause they do not understand. I see them looking up to me, pleading and begging for peace among us so that this terrible war among them may cease. Look closely, believe that they are there—and you may see it, too."

Something of the emotions he had once felt for her stirred within him and put his mind in old, forgotten rapport with hers. He looked in the direction of her fixed, staring gaze.

And he saw!

Like a mist rising out of immeasurable depths, a swirling grayness was about the inanimate shapes. Rapidly, it faded, and where it cleared, the lifeless blobs were no longer. In their place were tiny, living, moving figures amid the splendors of a great, fantastic city.

And suddenly, as if diving from great heights, he was in their midst. He heard their voices and understood the words they spoke. Words and voices filled him with fear and despair. Abruptly, the figures seemed to be aware of him. Their eyes turned towards him in pleading. They spoke directly to him, a confusion of many voices raised in a plea for peace, which only he could grant.

It was a world filled with mad despair, an illusory, unreal world, yet one which could persist in waking hours like a terrible nightmare.

Instantly, with this thought, the scene vanished and he was looking upon Theis and the silver Imaginos again. The room was stifling hot and sweat was on his forehead. His hands trembled ever so slightly.

"You saw them, and you heard?" Theis said.

He nodded. "I saw. I'm going to visit someone whom I'd forgotten I must see. I'll be back shortly. Don't wait for me."

He hurried from the bedroom and raced downstairs. He had the answer to it all now. That moment's shuddering impact when he had glimpsed the illusions of Theis' mind had shown him why Jemal's index had gone down.

Somehow, someone was deliberately trying to prevent the outbreak of war. Perhaps even the Medralians themselves. The Imaginos could be controlled by electromagnetic radiation in some manner to inspire fear of war and control the minds of those upon whom they operated. He wondered just how many of the hellish devices had been distributed throughout the planet. There could be hundreds of thousands. It would take months to confiscate them all and destroy their enervating power. But perhaps that would not be necessary. It might be sufficient to destroy only the control centers. He didn't understand about things like that, but there were plenty of scientists in the government service who did.

He put in a call to the govern-



ment library information bureau. The round-the-clock service could give him the lead he needed.

"I want the available information on the ownership and distribution of the toys known as Imaginos and sold in Curran City by the toyshop of Horrill Street which is presided over by a person known only as the Toymaker."

"Thank you. Will you wait? The information will be ready within five minutes."

"I'll wait."

The Toymaker hadn't looked as if he were capable of engaging in such intrigue and counterplotting, Callimus thought. But that made him all the more valuable as an agent of whatever powers were behind him. It seemed strange that

the government police had not discovered his activities.

The clerk returned abruptly. "The Toyshop," she said, "is owned and operated solely by a Professor Rold Theorn, ex-holder of the Chair of Peace at Curran University. He has associated with him a Dr. Derl, formerly of the Physics Department at Curran University, and a Dr. Tarro, psychiatrist. That is all the controlling interest seems to consist of."

"Tarro!" Callimus gasped. "The Dr. Tarro who is now in charge of government psychiatry here in Curran City?"

The clerk frowned. "Yes, yes—there is only one Dr. Tarro, Psychiatrist. It is the same man."

"Thank you—that is all," said Callimus.

He sat there for a moment trying to piece together this new factor with the rest of the slowly appearing pattern. So Tarro was one of them. That meant that no serious attempt was being made to cure the thousands of neurotic and psychotic cases that had appeared. Since Tarro was in charge of the government controlled psychiatric clinic, what he said and did was the law in his domain.

It meant, too, that there was undoubtedly adequate help available somewhere for Derrold and Theis, but that could wait for the moment. He had a visit to make.

Outside, the fog had won over the wind that had been blowing earlier. Now it swirled in ghostly shapes, closing in behind Callimus in his wake as he passed through it to enter his car. He decided to drive alone rather than have the chauffeur take him. He checked a pair of guns in the car and slipped them into his coat pockets. He could take care of himself in any difficulty with two old professors, he was certain. Tarro would be out on his rounds yet, no doubt.

The streets of the city were subdued in the shrouding mist. Seldom did such fog settle upon Curran City. Favorable air currents kept it away most of the time so it was a particularly depressing night for such a move as he was about to make.

He drove past Horril Street without recognizing the insignifi-

cant alley, and was forced to turn around and come back to it. The street was entirely deserted as he drove along it, the lights cutting through the grayness with orange-red flames.

He came at last to the darkened Toyshop. There was nothing of the gaiety that filled it in the daytime when ingenuous children flocked about the shelves and counters, letting their minds come within range of the hellish Imaginos, carrying away the control devices that would inspire dreams of terror and destruction in minds meant to stand fearless before all disaster. Callimus almost had to admire the fiendish ingenuity of the plot to destroy the military power of Jemal by enervating the minds of its youth.

He stopped close to the darkened windows of the Toyshop, peering in vain for activity within. There was, however, a crack of light from far back showing that someone was in the back rooms of the store. He had expected that. There would be much work after dark for such men as these.

Abruptly the door opened in his face. Metal glistened for a moment in the moist air. A voice came out of the darkness.

"Come in, Senator. We expected you would come tonight."

"Dr. Tarro!"

"Yes. Please don't try to pull out that gun, Senator. I have been waiting here in the dark for some time. I can see much better than you can."

"Tarro—what does this mean?"

"I'm not quite sure—not quite sure at all, but I wish I were. Come in and shut the door behind you. That's fine. Move towards the rear of the shop there where the light is shining beneath the door."

Callimus moved as quickly as possible. It was disturbing that they had gotten the upper hand for the moment. It was quite stupid of him, he reflected, not to have brought the government police in on this, but he felt no qualms over the possibility of their killing him. It was difficult to accomplish the murder of one such as he in Curran City and escape, and he was quite sure that they would not risk their involved plans to commit murder.

He reached the door and kicked it open. There were three other men in the unimpressive room. Beyond, through another open door, he could see equipment that looked as if the place might be a small laboratory.

Callimus dominated the room with his stance. He faced Rold Theorn. "So you're the great peacemaker!"

"Yes, I believe that so far we have succeeded," said Theorn quietly. "We have successfully blocked the rise of the index. I believe that we shall continue to drive it on down—or would have."

"What do you mean by that?"

"I mean that the situation has been quite distinctly reversed. Medral, not Jemal, has become the aggressor. Now, instead of

concerning ourselves only with Jemal, we must use every resource to establish harmonious relations with Medral before an outbreak occurs."

"What absurd nonsense are you talking about?"

"Please sit down. Allow me to present these other gentlemen, Senator Callimus. This is Dr. Derl, recently Professor of Physics at Curran. This is Mr. Reas Corper, newsman, who has become vitally interested in our cause, and whom we have to thank for our present information concerning Medral's intentions. Dr. Derl will tell you why we must pacify the Medralians at once."

Derl was not talkative. "It's simple. They'll wipe us out with the first blow. They're so far ahead of us that it's pitiful. We're fumbling children beside them. Of course, there will still be enough left of us to strike back—enough to make the whole thing virtually suicide for us both, but it's definitely that: suicide for both worlds."

"We've found out some special information just tonight," said Reas Corper. "They aren't going to wait for us to attack first. Since we've shown such warlike intentions, they are going to hit us a surprise blow in the next day and a half. That's why you have so little time."

Callimus looked at them as if unable to believe his ears were recording correctly. Then, sud-

denly, he threw back his head and emitted a roar of laughter.

"What fine melodrama!" he exclaimed. "You men planning the destiny of a planet here in this dingy back room of a toyshop. It's wonderful—as melodrama."

"You are forgetting the Imaginos that have gone out of this despised shop to all parts of the planet," said Theorn. "I think you know their power. Do you know how many have been distributed? We have quite complete manufacturing facilities and branch agencies. We've placed over fifteen million of them. That means fifteen million families whose children are hysterically begging for peace. Do you think the parents of those families are going to willingly give you your war? They are more than enough to keep the index forever below the critical level."

Callimus stared at him in unbelief. "Fifteen million—!"

Theorn nodded. "Quite an effective number, I'm sure you'll agree—since you've seen the results in your own household."

"Yes—it was the Imaginos I came here to see about. I have seen their results—and I'm sure you are quite aware of what will happen to the men responsible for this thing. The least you can do to lessen the consequences is to turn off the Imaginos at once."

"Turn them off?" Theorn looked puzzled. "No—you are the only one who can turn them off. That is what we wanted to see you

about. When you questioned Tarro about them tonight we knew that you would come. Their effect will go on until you wipe out the war tension and fears that you have created. Until then, the children of fifteen million families are going to plead incessantly for peace. And their parents are going to demand peace in order to end this hysteria even if you and all your kind are destroyed in the process.

"Look what you've done to us! History shows that Jemal and Medral are the same age approximately, yet scientifically and culturally they are a hundred generations ahead of us, all because of our incessant wars, our repeated backslidings after attaining some modicum of advanced culture.

"The wars in Medralian history are hundreds of generations apart while one major conflict almost every generation or two has sapped our own resources. Now we propose to step out and conquer the Medralians to 'protect' our system.

"The Medralians know the consequences of such a conflict better than we do. For a long time they have hoped that it might be avoided. They are convinced now that it is not. Their only hope of even fragmentary survival is to strike quickly and annihilate us before we can hit back. They knew the futility of such a hope. They are aware that we have protective defenses which can enable us to survive and strike back with great force even though they take the initiative.

"They know that the war will be suicide for both worlds."

"That is ridiculous!" said Callimus. "We shall crush them until not a stone—"

"Save the oratory for your next campaign—which you will probably not live to conduct," said Reas.

"There are differences between us and the Medralians," said Theorn. "Differences which, in some respects, make it very difficult for social and economic intercourse to exist between the two worlds. Fortunately, we are two different worlds and have the blessing of considerable distance between us. But there must be some degree of interchange. You have said that there is not room enough in the System for the two of us. I say there must be room for both of us or there shall be room for neither. Both or neither—that is the choice we have to make."

Callimus seemed quieted by the words, but it was a deadly calm. "What you have said, what you have done in distributing the Imaginos amounts to the highest treason against your world. Regardless of what happens to me, you know what the penalties against you shall be."

"The psychology of the warmaker is a tragic one," said Theorn sadly, "but it leaves him always with a single, terribly vulnerable spot. It is upon this weakness that the Imaginos play and have their advantage.

"The warmaker always visions himself in his own mind as the

mighty conqueror, trampling down his enemies and their works. He boasts and shouts of his might and thunders defiance. Never once is mentioned the possibility of utter personal defeat. But it is there. Every warmaker knows it. Beneath all the outward blast and cry there is the deeply buried vision of himself as the vanquished, a fearful vision that is seldom brought to the front of consciousness. The shouting and the boasting are allowed to smother it.

"But upon that deep fear of the personal consequences of war have I based my hopes for peace. Physicist Derl is responsible for the materials of which the Imaginos are made—he and Dr. Tarro collaborated in the technique of their use.

"This material is capable of selecting and reflecting with amplified power the various weak radiative thoughts of the mind. Telepathy is a known but impractical art among us because of the weakness of such transmissions. The material of the Imaginos has power to emanate such mind activating radiations for a long period of time after having the proper stimuli recorded on it, so to speak. The material can also be formed so as to respond to certain selected impulses of nearby minds.

"Thus, you can see how the Imaginos worked. We distributed this material in the form of shapeless, grotesque images because the scoffing and ridicule of adult minds served to close those minds to the radiations. Otherwise, there would

have been too much investigation of the mechanism of the Imaginos. Children's minds, however, had no idea of ridicule or investigation. They responded readily, therefore, to the recorded impressions and so the Imaginos became playthings, revealing fantastic adventures which we had recorded there.

"After a time, however, the recordings became fainter and the stimulus to which the material responded most forcefully became predominant—the stimulus of fear.

"The fear was already there in the mind of every child approaching adolescence. They have heard their parents talk of the impending war. They have heard the news stories, and your deliberate propaganda. They knew what it meant, and their sensitive minds were filled with apprehension and dread, which were magnified a thousand fold every time they played with their Imaginos. Simultaneously, there came into play a secondary impression recorded upon the figurines—a plea for peace from the imagined characters who were at conflict with each other. It was a plea that only peace among the adult world of Jemal could enable the fanciful creatures of the Imagino world to cease their conflict.

"There you have it—millions of families in which your propaganda was being counteracted by the pleas of frightened children who demanded peace of the adult world—perhaps a harsh remedy, but far less so than the war you would have them endure. Their condi-

tion is easily recognizable as war inspired hysteria by any competent psychiatrist. Soon the information would have swept the planet that the only cure for this epidemic of hysteria among the children was the assurance of peace. The children, their parents, the psychiatrists, all would have deluged the government with demands for peace. All your propaganda would have been swept aside." *

"If you were so confident of all this," sneered Callinus, "why are you taking time to tell me all about it? Why do you say 'would have' instead of 'will'?"

"Because we have failed," said Theorn. "Because we are too late."

"What do you mean?"

"We have told you. Medral has already completed her war plans. She is ready to attack at any moment. That was learned by one of the newsmen accidentally. Reas Corper obtained the information and came to us at once."

"So you lose, after all."

"No, through you we may yet win—unless it is already so late that no power can stop the suicidal forces you have set in motion."

"Through me?"

"Yes. Because you have the greatest stake from the standpoint of imagined political power to be gained from this war you also have the greatest fear potential. You know better than any other man upon Jemal what this war will actually mean."

"I don't know what you're talk-

ing about. You can't force me by any torture to—"

"The only torture will be of your own creation. Derf!"

The physicist lifted a box to the table and removed the protective cover exposing a block of silvered material. Callinus stared at it and knew instantly what it was. He tried to turn away from it, but it held him and drew him. It showered his mind with deep-dredged, unwanted thoughts and emotions.

"That is a thousand times the intensity of the strongest Imaginos we used," Theorn explained.

That was the last that Callinus seemed to hear from the world of the fantastic little room in the back of the Toymaker's shop.

He knew the sensation of succumbing to the illusions of the Imaginos, but this was swifter, more intense, more terrifying. He was not in the make-believe world of the Sackes and the Brams this time. He was abroad on the streets of Curran City, but it was such a city as he had never before known.

The buildings were such heaps of fused rubble that for a time it was impossible to recognize his exact location. A pall of thick blue smoke overhung the endless piles of debris. He looked in the direction of the great spire of the Capitol and only a great, gaping hole in the skyline testified to its utter demolition.

There was a cold, tightening web about his heart. He knew it as

fear, but such fear that it seemed a black alien thing invading his soul from some forgotten world. He was quite rational—and wondered how he could be before the onslaught of that black fear.

He did not know where he was going in that blackened and ruined city. Miraculously, he seemed alive while all else was dead. The smell of death and decay hung darkly over the wreckage of the great capitol of the System.

Some forgotten something seemed to be gnawing at his brain. Then he remembered it, his purpose in prowling through this dead city. Theis and Derrold—it seemed that he had crossed the world on foot in search of them. Theis, the beautiful, poetic wife of his youth. Derrold, the son to fulfill his dreams of mighty leadership.

Somewhere, somehow, they had to be alive amid all this vast plain of death. The world would stop and die, if they should not live.

The hot sun heat down, and somewhere high above him, like a ghost through the blue smoke, he glimpsed a distant ship of Medral cruising as if it were a carrion eater in search of prey. As he watched the triumphant ship he reflected that victory was not all on the side of Medral. That world also lay in such ruin that a thousand years would scarcely see recovery from the blows struck by Jemal.

All this was the thing he had feared, he thought, but the thing he would not believe could happen.

His own personal danger had always seemed utterly remote.

Now, as he plodded through the hot dust and over the broken fragments of paving and frozen lava streams, he wondered if the dead who lay beneath the tombs of the broken buildings were not to be envied.

After hours longer, he came to the place where rich gardens had once bloomed—where now only skeletal organic matter remained after the blasting of the deadly radiations of the Medralians. This place was the estate of Callimus, Senator, Head of the Security Committee.

This place was death.

He came to the top of the low rise and looked, and that was all. There was no more to be done. Where once his house had stood was only a mass that had flowed like melting grease into a shapeless heap. It had been quick, he thought. Theis and Derrold had never known what struck.

The agony was too great for tears. The fear was too great for defiance. He crumpled to the ground, the only living thing in all the vast ruin.

Derl covered the block again, and slowly Callimus felt his senses returning to the dingy back room of the toy shop.

Rold Theorn broke the long silence in which the eyes of Callimus shifted wildly like those of some caged animal.

"We have no idea what you saw," said Theorn. "because those

things were your own thoughts, your own fears. They are things which you know are not only possible but probable, things which you have denied admission to your consciousness because you could not do so and continue your war-making. You could not have continued to defiantly assert the might of Jemal—and of Callimus. We know what you saw were fearful and terrible things, because only fearful and terrible things can come from the plans you have made."

Callimus looked at the circle of grim faces. He told himself what he had seen was only a fantastic dream, an illusion created to destroy him. But that black thing that was fear within him remained though the dream was gone. Its roots were planted so deeply within his brain and his heart that it could never be destroyed without destroying him and the things he had fought for. For the rest of his life he would bear that black inhabitant of his soul.

Rold Theorn leaned forward across the table and his voice was a hoarse, commanding whisper.

"Act, Callimus! Act—before it is too late!"

The eyes of the Jemalian leader turned from their wild ranging to a sudden stare. "Yes . . . you are right," said Callimus. "Before it is too late—"

His words were cut off by a sudden scream in the night, the scream of spitting air and the slash of fearful beams of energy. Then there came a slow, terrible rum-

bling like the boiling of the very substance of the planet upon which they stood.

The five men listened in sudden deathly silence. From far away came the rumble of explosions as matter disrupted beneath a sudden onslaught.

Theorn slumped at the table. His voice was scarcely a murmur. "We've failed after all. Medral has attacked. This is the end of two worlds."

"No!" Reas Corper exclaimed. "There is still time. Offer unconditional surrender, Callimus! Get to a communicator! They'll accept your word temporarily. You have the authority. It can be confirmed later. Go!"

Callimus sat immobile as if witnessing some unfathomable horror the others could not see. The amplified, thousandfold fears within him were screaming hideously within his brain, paralyzing with their rampant terror.

He struggled up to his feet. He started for the door. The scream of the air and the boiling rumble grew nearer. Suddenly the room shook as if a vast wind had twisted it. The men hurled to the floor and the walls parted to show the bloody glare of light in the nighttime.

Reas Corper shook away the dullness from his mind, but not the sharp pain from legs that could not move. Derl and Theorn lay motionless nearby in the splintered wreckage of the room.

But Callimus was struggling to his feet. Though his eyes were still

wild with fear in the crimson light of flaming sections of the city, the blasts seemed to have shaken the fear roots that were constricting his muscles.

"It may not be too late!" he cried as he ran, stumbling over rubble piles. "There may yet be time—!"

His fantastic figure vanished in the shadows of the firelit night.

Reas Corper made no move except to lie back and close his eyes. This was a terrible way to die, he thought. It was bad enough when a man died alone, but it was more than bearable to know that your death was also the death of great worlds. He wished he could have seen Eolana and Borren again. That might have helped a little bit.

Gradually, Reas became aware of a movement beside him and a figure rose to sitting position. He recognized Dr. Tarro. The psychiatrist suddenly glanced about wildly. His eyes fell upon Reas.

"Callimus! What happened to him?"

"He apparently went off to attempt to surrender. At least that seemed to be his intention when he stumbled out of here."

Tarro grunted with satisfaction. "We were in time then—unless he gets himself killed on the way. He'll not let anything stop him."

Reas shook his head. "I hope you're right, but it's hard to believe that Callimus, the warmaker, could be turned into a man who would struggle to stop a war of his own concoction."

"Callimus is no longer the war-maker. That is the point that I couldn't make Theorn understand very well. Callimus' motivations have been completely reversed. In every man there are conflicting motives. Generally, one is represented by a fear that would throttle the opposite motive. If that fear can be multiplied many hundredfold, as you have seen tonight, the motives of the individual can be completely reversed. I have studied Callimus for many months, because I knew he would be the key figure in our plans once he became head of the Security Committee. I was confident of the capacity necessary to reverse him. In a lesser man it would have meant insanity, but Callimus is strong if nothing else.

"What of the others? Where are they? I don't seem to be able to see so well. I wonder if my eyes—"

"It's smoky now," said Reas.

"Perhaps that is all. I can't see. Something seems to be wrong with my legs. Theorn and Derl are over here near me, but they haven't moved. I can't see what might be wrong with them."

But even as he spoke he glimpsed the form of Theorn stirring slowly.

"Theorn! Are you all right?"

The peacemaker answered with a muffled grunt. Slowly and painfully he moved towards the others. After a time he and Tarro moved slowly to where Derl lay. The physicist was still alive, but terribly hurt.

Still the ships of Medral wheeled in the Jemalian sky. Much of their

fire was drawn now by defending craft that spun and stabbed out in space against the fast dreadnaughts. Yet the attacks against the city were devastating.

As dawn filtered through the pall of fumes and smoke of destruction the four injured men in the ruins of the Toyshop of Horril Street lay in pain and despair and waning hope. Even Tarro was beginning to believe that somehow their work had failed, probably that Callimus had been killed.

Then suddenly Reas opened his eyes that had been long closed. He was lying flat on his back and staring up through the jagged splinters that had once formed the roof. He saw four of the Medralians cruising slowly. Circling about were a score of Jemalian fighter craft. But while he looked, the opposing fleets separated, and there was no fire between them. The distance between them increased and they went their separate ways.

Reas Corper contemplated the miracle for a moment, then pointed aloft and exclaimed shrilly. "Look! They aren't fighting any more! They're leaving."

The others looked up. Six more Medralians passed overhead as if to keep a rendezvous with their sister ships, but their destroying fire had ceased.

Tarro's voice almost held a sob. "Callimus made it. I knew I hadn't misjudged him. He's saved Jemal, and he'll become the greatest peacemaker the world has ever known, because the populace will have a belligerency index approaching zero.

They'll make him President because he brought peace."

Yes, that's the way it would work out, Reas thought. Callimus would get the credit for saving Jemal and Medral, but the worlds ought to know the true story. They never would; political considerations would make it impossible to reveal the part that Theorn and his companions had played.

"Somehow it ought to be possible to at least let future generations know that the true peacemaker was Rold Theorn, not Callimus, even if we can't tell it now."

"I want no credit," said Theorn. "I once read the work of one of our archeologists who investigated some ruins on an ancient world that destroyed itself just as Jemal and Medral might have done. It was written there, 'Blessed are the peacemakers—': That is true, and

that is enough. Peacemaking is its own blessing. There is still much for all of us to do. We very nearly failed. We must increase and improve the guardians of the peace, so that there can never be such another narrow escape. We must find ways to make them last a thousand years."

Reas looked puzzled. "I don't understand what you are talking about."

"The Imaginos, of course. We have fifteen million of them in circulation. We must make it a hundred times that number and improve their recording permanency so that they will still be in use centuries from now, whenever some unborn Jemalian ruler threatens a war of conquest.

"Perhaps by the end of that time, the guardian Imaginos will not be needed."

THE END.

IN TIMES TO COME

Next month A. E. von Vogt starts a two-part novel, "The Chronicler." It's almost impossible to define this yarn—a tale of a three-eyed man, and the strange world his strange sight led him to. A world where one mighty city, possessed of a tremendous science—rotted in decadence behind its impenetrable screen of force. And outside, barbarians lived in caves, and worked miracles!

There's a new author coming up, too. One John MacDougal, with an item called "Chaos, Co-ordinated." It's an intriguing little discussion of what happens when you tell fairy tales to intelligent—but naive—machinery.

Also coming up in future issues is a change in the appearance of our front cover. The long-familiar ASTOUNDING science-fiction is going to change. You'll have to look hard to find ASTOUNDING—it's going to be astounding SCIENCE-FICTION.

Keep an eye peeled for the change.

THE EDITOR.



BLIND TIME

by George O. Smith

The real problem of the missing link—missing because displaced a few hours in time—was how to prevent an accident that had already happened!

The man behind the large, polished desk nodded as Peter Wright entered. "Wright," he said, "the Oak Tool Works will require an adjuster. You're new in this office, but I've been given to understand that you have experience, are willing, intelligent, and observing. The Oak Tool Works has a special contract, and it is always taken care of by Mr. Delinge who happens to be having a vacation in an unaccessible spot. Therefore, you will pinch-hit for him."

"I understand."

The president of Interplanetary Industrial Insurance nodded.

"Good," he said. "You are to be at their Charles Street plant at eight o'clock tonight. They are to have an accident then."

Peter Wright nodded. He turned to go, his head mulling over the myriad of questions used by the average insurance adjuster. The questions designed to uncover any possible fraud. Those designed to place the full blame of the mishap, to ascertain whether it were covered by the existing contract, to determine the exact and precise time of the accident—

"What?" he yelled, turning back to the executive.

The president of I.I.I. nodded wearily.

"I heard you right?" asked Peter incredulously.

Edwin Porter nodded.

"But look, sir. An accident, by definition, is an unforeseen incident, which by common usage has

come to be accepted as misfortunate, although the term 'accident' may correctly be applied to—"

"Wright, after you have been to the Oak Tool Works, you will become violently anti-semantic."

"But look, sir. If this accident is forecast with certainty, why can't it be averted?"

"Because it has happened already."

"But you said eight o'clock."

"I did," said Porter. "And I mean it."

"But . . . but it is now about three-thirty in the afternoon. At eight o'clock this evening there is to be an accident that has happened already. The Oak Tool Works is in this same time-zone; they're running on Central Standard Time, too. So far as I know, the Oak Tool Works is not manufacturing time machines, are they?"

Porter grinned despite his weariness. "No, Oak is not manufacturing time machines."

"I am still in gross ignorance. If anybody is capable of truly predicting the future on the basis of ten percent accuracy, he'd put the insurance companies out of business—unless they hired him."

"The future, in some senses, can be predicted," said Porter.

"Only on a statistical basis," answered Wright. "The prediction that tomorrow will arrive at precisely such and such an instant is a prediction based upon the statistical experience gained by several thousand years. So is the prediction of what will happen when sulphuric acid and potassium nitrate are

mixed. But an accident, sir, is unpredictable by definition. Therefore he who can predict an accident is a true prognosticator who needs no statistical experience to bolster up his forecasting."

"Wright, this argument gets nowhere. It, incidentally, is why Delinge always handled the Oak contract. He knew, and there was never an argument. No, I'll tell you no more, Wright. You'll be incredulous anyway until you've seen it in person. Eventually, you'll understand."

"I doubt it," replied Peter. "Seems to me that there are a couple of very obvious factors. One, if an accident can be predicted, it can also be avoided. Two, if such an accident is foreseen and nothing is done about trying to avert it, then it is a matter of gross negligence and the contract may be voided on those grounds."

"With but one exception to your statements, I agree," said Porter. "The accident that will take place at eight o'clock has already happened."

"What you really mean is," said Peter Wright, more by way of question than by statement, "is that the accident has occurred but will not become evident until eight?"

"I'd hate to try to explain it in a few words. Let us try by analogy. A man atop of the mountain sees an avalanche start toward a railroad track. The avalanche takes out the track, preventing a meeting between two emissaries on a vital question. The vital question is not settled, and two countries go to war. In the war,

one country discovers a means of nullifying gravity, which after the war is used to start interplanetary travel. Several years after interplanetary travel starts, the rare metals are discovered in plenty and the cost of shipping is such that the monetary system fails and the system enters a trying period of depression. Now, could you, a man suffering because of the depression, go back and turn aside the avalanche?"

"No, but I fail to see the connection."

"There isn't any, really. In that case the depression was due to a concatenation of events. In the case at the Oak Tool Works, the accident per se has already happened, but it will happen at eight o'clock. You, Peter Wright, will witness the accident that will happen and make a suitable settlement."

"Let's hire the prognosticator," suggested Wright.

"The laboratory is working full time on a means of utilizing the principle in our business. To date they are not successful. For me, I hope they are never successful. I'll stick to the statistical experience, since true prognostication depends upon some sort of pre-destination, which if true makes a mockery of all effort."

"All right," grumbled Peter Wright. "I'm going. What sort of accident is . . . will it be?"

"Go prepared for anything from simple abrasion to loss of limb. I doubt the possibility of death, but—"

"I give up," groaned Wright.

"Where's Delinge?" asked the man at the Oak Tool Works.

"Vacationing on Mars, I believe."

"No offense, young man. I'd prefer him only because he has experience in this. I'll have to spend some time in explaining to you, as a newcomer, just what really goes on."

"What I'd like to know," said Wright, "is some means of averting these predictable accidents."

"We've tried. We've also failed."

"Look, Mr. Simpkins, I'm of the legal profession. I am not too much of a scientist, and I know about nothing regarding machinery—let alone the kind of plant that makes tools that make tools. I took a course in mech, of course, and forgot it as soon as I made my grade."

"Do you know what a blind rivet is?"

"Ah . . . er . . . one that can't be seen from both sides?"

"Right. A sealed tank, for instance, usually has a manhole in it for the bucker. The bucker holds a bucking tool against the rivet while the riveter rams it over. Similarly, bolting structures together requires that a counterthrust or torque be applied to the nut or bolt on the other side. Unless the structure is equipped with tapped holes, which are expensive and cannot be made with driller beams."

"Driller beams?"

"An outgrowth of the war laboratory. What used to be called a Buck Rogers. Doesn't really disintegrate the metal, of course, but dissipates the binding energy between molecules and lets the metal

float away in a molecular gas, driven by its own heat energy. The beams are sharply defined as to diameter and depth of penetration; you can set 'em to a thousandth, though it takes cut and try methods to do it. We don't really drill or cut metal any more. We beam-drill it and beam-cut it. It's possible to set a screw-cutting beam, but tapping a three-quarter inch hole is not for any construction company."

"I follow."

"Well, in setting blind screws and blind rivets, we have a method whereby the bucker need not crawl around on the inside. Actually, we don't use a bucker any more. The riveter does it all from one side."

"I've heard of blind rivets."

"This is not a self-setting rivet," said Simpkins. "This is a real rivet-set system. Wait, I'll show you one."

Simpkins snapped on the inter-communicator. "Ben? Look, Ben, we've got a new man from I.I.I. here who doesn't know the ropes. Can you bring up a blindy?"

"Sure, but it will be dangerous."

"I'll have the signs posted."

"O.K.," answered Ben. "I'll be up in a minute."

"Look, have you got one that is about to reform?"

"I would get that kind anyway. No sense in tying up the corridor."

"O. K."

It was about a minute later, no more, when a knock came at the door. Simpkins called for the knocker to enter. The door opened

and a man in overalls stuck his head in. There was a grin on his face and a smudge of grease on his nose. "Can't, Joe," he said. "You didn't leave the door open."

"I couldn't be going to forget that?"

Peter Wright swallowed. "Going to forget?" he gasped.

"Ben," said Simpkins in a very tired tone, "through the door glass, huh? Let's show this man what we're up against."

"Right."

Simpkins snapped the communicator. "Tony? Get a new glass for my office ready."

"How soon?"

"Within the hour."

"Right. I'll have it cut and waiting."

Peter shook his head, and then watched Ben enter with the riveting tool. He looked at it, and Ben, with a grin, held it up in front of Peter's nose.

There was a regular air ram with handle. That was standard. But the second air ram hitched in opposition alongside of the standard job was new. It projected out, its business end projecting in a caliper arc beyond the standard ram, and returning to buck the standard ram. With this tool, one man could both ram the rivet and buck it with the same tool, and, since both hammer and anvil were driven, the effort was in opposition mechanically, and no great effort would be required of the operator.

But the thing that stopped Peter Wright cold was the . . . the—

The missing link!

Several inches of the caliper were missing.

Ben nodded.

Peter reached forward gingerly and passed his fingers through the space. He felt of the ends. They were microscopically smooth, true planes of cleavage. The far end, that acted as anvil for the main ram, was solid and immobile despite being separated from the framework by six inches of—nothing.

"You see," said Ben, "we need only a small port in the item we're building. For instance—" and Ben opened the closet door a crack, slid the far end inside, and then closed the door. He shoved forward and rapped the door panel with the main ram. Then pulled back and—

Rapped the inside of the door panel with the hidden end.

"If we were riveting, now, we could slip in our rivet and pull the trigger. Follow?"

"I follow, but where's the missing piece? What holds it that way?"

"The missing piece is coming," said Ben, retrieving his instrument and sitting down.

"I . . . ah—" started Joe Simpkins, and then taking Peter Wright's arm in a viselike grip, pointed dramatically to his office door. "The wind," he gasped.

Wright shook his head. It was far too much for him. He was strictly out of his element, and struggling madly to keep up. The door, he saw, was swinging shut, propelled by the wind. He recalled

what they had said at the portal upon entry, something about the door should be open. With a shout and a leap, Peter raced for the door.

It slammed, and Peter grabbed for the knob.

Then the glass erupted in his face; in shards it fell to the floor, and a metal piece came soaring through the air, through the glass, and circled the room. Peter's jaw was slack as he watched it flying about with no apparent plan. It poised for a minute before his chair, where Ben had held up the blind riveter for his inspection. In Peter's imagination, he saw himself sitting there, passing his ghostly fingers through the spot where that piece of steel now hung immobile. It headed for the closet, and Ben, watching, opened the door wide. The piece slid in, moved this way and that, rapped forward against nothing and then rapped backwards toward the room—against nothing, and then floated rapidly toward the riveter itself.

With precision it approached the riveter. It came to rest easily, slipping into place with no shock, and the cleavage lines disappeared. The blind was complete again.

"See?" said Simpkins.

"Yeah," gulped Peter, weakly.

Laconically, a workman entered, cleaned up the glass on the floor, and started to replace the shattered panel.

"I see—but I don't really believe it," said Peter, flopping into his chair.

The two men laughed uproariously.

Ben sat down and Simpkins started. "You see, the time field," he said by way of explanation. "I haven't the vaguest notion of how it works or why. I admit it. But what does happen is that during the workday, the missing sections of all blindly tools are stored in the tool room. At the end of the day, their respective tools are returned to the tool room where they restore completely. About seven to eight o'clock, the midsections emerge from the tool rooms and go through the motions made by the entire tool, eventually following their ah . . . owners . . . back to the tool room where they join. At this point, those tools required for use on the following day are placed in the temporal treader, and treated for whatever period of action is required."

"If it takes four hours for work, they're treated for four hours," put in Ben.

"And once the day's work is finished, the work itself must be moved, since where the tool fits across a barrier, now the missing piece occupies that same space. If it does not find room, the man handling the tool several hours before will not be able to set his tool."

"Which was why I couldn't enter with the riveter," added Ben.

"It acts quite normally," said Simpkins, though with some doubt. "You couldn't bring the thing through a barrier if no time-difference exists. Actually, there is a temporal offset in the thing. It may pass through the same space as another time, but not at the same time."

"And you can't lick it," said Ben solemnly. I purposely left the door open. But if I had really left the door open, I'd have had no resistance in the first place—I found no trouble in hooking it over the closet door—because when the mislink appeared, I opened the door for it. It does help, sometimes," grinned the shop foreman, "because we can tell when a piece of work is not going to be moved. Then it impedes the work."

"How do you know whether the impedance caused by not moving the work is responsible for the work not having been moved?" asked Simpkins, wonderingly.

"I don't mind being on either horn of a dilemma," said Ben. "But I've yet to see the dilemma that I'd ride both horns simultaneously on."

"Um, a bad animal, the dilemma," laughed Simpkins. "Well, Wright, I trust the demonstration was successful?"

"Successfully confusing," admitted the insurance adjuster. "I gather that the injured party got in the way of a missing link?"

"Whoever it will be was in the way of a mislink from a box-car crane."

"Bad, huh?"

"Could be—we'll know in a while."

Ben lit a cigarette and said: "The box-car crane is a gadget made possible by the temporal treating. Prior to its use they put heavy machinery into the box car by running to the door on a crane and then they dropped it on a dolly and slid and

levered it inside and in place. Now they have a crane with a mislink between the pulley block and the grab hook. They hook it on, lift it up, and slide it inside the car, suspended on the mislink that permits the roof of the car to intervene."

"And the victim fell a foul of one of these?"

Ben nodded.

"You're absolutely certain?"

"Of course not," he said. "A number of things might have caused the trouble. This one is a boom-type crane. The mislinks are in the booms, and when it was swinging back from dropping a case inside, it hit something."

"Something? Can this be identified?"

"With a minor interference, we can feel it," said Simpkins. "With a mislink screwdriver, we can feel the interference. If it is hard, we know that someone has—or will drop something in the way."

"And if it is soft, and moves, you can estimate it to be animal," added Ben.

"Can't you probe with a feeler of some sort?"

"We do—and did. There was a body on the ground after the accident."

"No identification possible?"

"None. Probing with a rod in the dark makes identification difficult. We've tried to make some sort of study, such as wearing a magnetic badge with a key-impression on its face—the magnetic to locate and the key to identify, but frankly," and Simpkins frowned deeply, "it's psycho-

logically dangerous. The accident can not be averted. After all, it has happened. And we tried it once, and the man who was hurt—well, knowing he was to be hurt, he went into a mental funk far worse than the accident."

"Why didn't you send him home or have him guarded over carefully?"

"We tried, kept him guarded closely. Aside from putting him in an air-tight case, we did about everything. When the accident occurred—well, he and his guards went to watch the first time that the thing could be fooled.

"It happened, all right," said Simpkins. "First, another man caught a mislink on his shoulder, which laid him out slightly. That, we thought, was it! And if it was, the time-factor was all screwed up. But we all ran forward to measure, and as we did, our man got clipped with another. The first accident had gone unnoticed by the operator."

"How can you tell that such an accident will happen?" asked Peter. "Seems to me that a hundred tons of crane might not notice a few pounds of human in its way."

"We erect guard-wires that register. That is for one reason only. We use it to summon the medicos and the hospital ambulance, and prepare for action. That's about all we can do."

"I wonder if you could take a picture of such?" suggested Peter.

"Huh?"

"Take a picture with a camera

controlled by the operator—you know, temporal-treat the camera, film, and all but the range finder and the shutter release."

"Look, fellow, that would take a picture of the accident as it happens, all right. It's also done. Makes excellent records. But as for pre-accident stuff, know what happens?"

"No, of course not."

"Well," smiled Ben, "you'll see. Anyway, the camera comes roaring out, is poised in midair, and is snapped. The timing isn't too good, however. Well, you'll see the camera come out and snap around the place when the accident happens. Remember this is not time travel, and you can't go forward and take a picture and then come back."

"For what good it does, we can tell about when a piece of goods will move by leaning a long-time mislink against it and waiting for it to fall."

"Does electricity cross the gap?"

"Nope. Only force and motion. The television idea isn't good either, young man."

"Um, how did you know?" asked Peter.

"We go through this regular. You're not the first that has been trying to avert accidents."

"You understand that I represent I.I.I.?"

"Yes," said Simpkins. "As such, it is your responsibility to do as much as possible to save your company money. That is your job."

"Right. I still say that there is some means of averting the accident, somehow."

"Well, Ben, we've always claimed that we'd tried everything. But they didn't try the electric light until Edison got the idea, and the airplane was a new science when they went to work on it. Young man," said Simpkins, to Peter Wright, "you are a young man with a bright mind for legal intricacies. It usually makes little difference so long as the mind is capable of handling the intricacies, just what the mind was specialized in. You are a fresh mind and we've all seen fresh minds enter and lick a problem that stuck the original men for months. You think you can lick it?"

"I don't know. It just seems to me that there must be some way."

"Don't forget," said Ben, "that this is not much different from a regular problem. In construction, I mean. We have accidents where a man is hit by a flying grab hook that is not in any way temporal treated. Common accidents. The real problem, Peter, is to stop accidents. Not to try to avert them after they have happened."

"But this one—"

"So far as the temporal treatment goes, is—or has happened."

"Could you temporal treat the stuff so the mislinks pass through first?"

"Sure," laughed Ben. "Not practical. They have no forewarning then. They just go where

the tools will go when used. We can't tell when one of the men will try to grind a mislink chisel. As it is, we can clear the area where the tools have been."

"Just remember that this is fact: For a one-hour mislink, we treat the tools for one hour. They are then ready for use for one hour. At the end of that time, the mislinks start to follow, and follow for one hour, at which time the temporal difference decreases on a fourth power curve, and the mislink catches up with the tool and falls back into place."

"Uh-huh. Well, I'm new at it, gentlemen, but it is my guess that this accident you anticipate need not happen."

"You forget," corrected Ben. "It's happened."

"Then where's the body?" demanded Peter Wright.

"It . . . ah—"

"Has it really happened?"

"It will with certainty."

"Thus proving the utter futility of all effort?"

"Ah—"

"See?" laughed Peter.

They left the office and proceeded into the factory. Here, where things should have been humming, all was at a standstill. Men sat on the benches and smoked nervously. They looked into one another's eyes with that "Will it be me?" stare, and they worried visibly. An electrician who tinkered hourly with lethal voltages as his day's work sat and chewed his fingernails. A machinist, sitting on

the bedplate of a forming press large enough to stamp out an automobile body around the place where he sat, was biting his lips and looking out through the opened door to the shipping platform. Men outside were working feverishly, however.

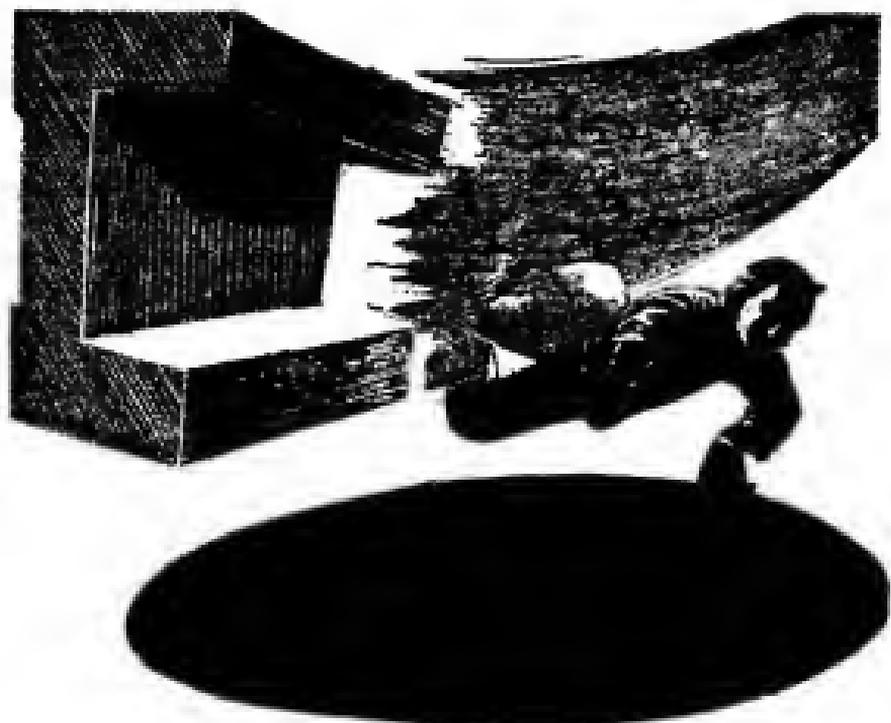
"Why?" asked Peter.

"They want to get done. They must get done so that the engine can remove the car where the accident will happen."

"Where is this scene?" asked Peter.

It was out on the loading platform. A mislink crane shunted large cases from the platform, swung around in an arc, and the missing section passed through the door and the crane ran down the length of the car, dropping the case at the far end. The mislink crane returned, the far end reappeared, and another case was hooked to the boom. The operation was repeated. The cases were fitted in the box car with neatness and dispatch. The pile of cases diminished, and the box car was sealed as the crane went to work on the next car in line. It took time, though, to fill each car, and the men working out here sweated visibly, partly in fear and partly from the hurried work.

They had little time to stare into one another's faces and wonder which of them would be taking the brunt of the accident. As time wore along, the siren of the ambulance arriving caused some nervousness. The doctor and his corps of nurses came slowly forward, in-



quired as to the scene, and proceeded to lay out a fairly well equipped emergency operating set-up.

"I'm beginning to feel the morbidity of this," said Peter. "The doctor, the ambulance, the insurance agent. We're like a bunch of vultures awaiting the faltering step of the desert wanderer."

"A bunch of undertakers waiting for the accident to happen," said Ben. "No, I'm not calloused. I'm scared slightly green. I can't tak it unless I joke about it. It's the uncertain certainty—the wondering just which one of us gets caught in the certain accident."

"It seems uncanny to talk about the certainty of accident," said Peter.

"The training at I.I.I. would instill a bit of the perfection of the statistical method in you," nodded Simpkins. "By the time your statistical bureau gets all done checking the chances of a new account, no one would bet against it. I.I.I. also puts the kiss of death on, too. Just try to hire men for a plant that can't be insured by your outfit. They'll ask a thousand credits a day."

"What time is this affair going to happen?" asked Peter.

"Not too long. They're about finished. Then they inert every-

thing as usual and we'll all retreat to the inside wall and wonder."

"Why not all go home?"

"You can't win," said Ben solemnly. "We did all go home once."

"And the accident happened anyway?"

"Certainly. A thief broke in and it clipped him. Just don't forget that this isn't a probability, it's certain. And the same mob-instinct that makes people gather around an injured man will keep the entire gang here, morbidly waiting to see who gets it in what way. There is that element of wonder, too, you know. Every man in the place knows that someone is going to get clipped with that crane. They're all cagey and very careful. It will be an accident despite planning, and therefore the unforeseen something will be out of the ordinary."

"Quite a problem, Peter," said Simpkins.

"I see it is."

"A lot of this veiling is sheer psychiatry. We've consulted the best behavior specialists in the system. Keeping the fact secret is worse than permitting free knowledge, according to them. But identifying the victim is far worse than to have everybody in a slight tizzy."

"Why?"

"Well, when it happens, we have a victim that realizes that part of the chance was his, and shock is not so great than it would be if no warning took place in light of the

management knowing all about it beforehand. On the other hand, all the men who were not hurt get as much uplift after it happens as their downswing of anticipation. On the third hand—pardon the numbers, Peter—if the victim were positively identified, the rest would be no better off, but the victims would be a mental case from then on, and shock would set in prior to the accident. Then we'd be likely to run up the casualty rate. Follow?"

"It seems like a hard row to hoe."

"Well, usually we keep people out of danger areas. We know where they'll be, of course. It's these darned accidents that happen twice in time."

"Twice in time?"

"Yes. The accident happens once invisibly, and once visibly. Once in the future controlled by the present, and then as the future unfolds, it is an accident happening in the present, controlled by the past. It's blind time, and there is nothing we can do about it."

"That fatalistic attitude again."

"Well—"

Ben interrupted. "They're stopping now."

They turned to watch. The final box car was loaded and the engine drew them away. The mislink crane returned for the final time and was stowed on the platform. A hush fell over the crew, and the windows in the back were filled with faces, watching.

The silence was intense. Peter realized that practically every man was holding his breath, and yet it would be at least a half hour before the mislink began to follow the crane, and some time after that before the mislink caught up to the scene of the accident.

He let his breath out with a sigh, and mentioned the fact to Ben and Simpkins. The foreman nodded and agreed, saying: "We know, but there isn't one of us who won't try to hold his breath for the next two hours."

"Impractical," muttered Peter Wright. "There must be a way."

The mislink was a husky section in its own right. The crane boom was no weakling. Thin rods, jointed on toggles, floated about ten inches from the main "I" beam, just as long as the temporal treated section itself. It made an eerie sight, this monstrous slab of solid metal, moving back and forth with determination and purpose, with *no visible means of support*. To add to the alien sight, the telltale rods maintained their ten-inch separation with a metallic

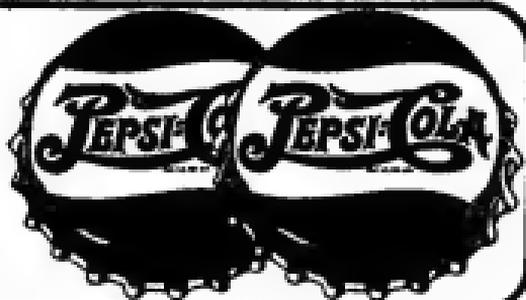
rigidity, though no connection was visible to the main girder.

On the loading deck were three painted circles. The inner one was a four-inch stripe of brilliant red. The circle approximated the scene of the accident. Outside of that by a considerable safety factor was an orange stripe, almost yellow. Another safety-factor distance away the third stripe of green inclosed the area. As the mislink crossed the green stripe, all eyes fastened on it. As it crossed the yellow-orange stripe, the watchers tensed, and as the mislink crossed into the danger section, there was a sudden, audible indrawing of breath, which was held solid until the mislink passed across the red line on the way out. The out-go of breath was definitely audible.

The tension mounted. A large clock, set up for the case, swept around and around toward the estimated zero hour. The watchers no longer looked into one another's eyes and when eyes met inadvertently, they both fell with a sickly smile that lacked courage.

Why were they there? Peter asked of himself, and he knew.

**TOPS
FOR
QUALITY!**



They were there because of morbid curiosity. The thing that made people watch three-hundred-foot dives into a large washtub of water; people watching a tightrope walker somersault on the wire above Niagara; watching the high trapeze artists performing with no net. That one of them was certain to be called into the act, the element of chance and the element of danger, always a gamble, made them stay. With nothing to win, they stayed to watch, which is a basic characteristic of human nature.

They were there because they were human!

And when the accident came, the laws of the lines would be broken, though everything in every man's power would be done to maintain the safety. For the mislink would stop, after the accident, just as the crane had been stopped automatically by the contact with the telltale rods in their temporal extension of the crane itself. The green line, across which no one must pass save the authorities; the yellow line across which only the medical corps may cross, and the red line across which only two men may cross and then only to take the victim to the medical set-up on the dock. Men would rush forward, crossing the lines, and the victim would be carried away with a trailing number of watchers. Then, someone would have to forget the victim to keep the rest of the men from getting in the way of the mislink as it resumed operations. But, of course, no one else had been hit, so this, at least, would

be successful, and the men were very confident that no matter what they did, they would not be hit.

The minutes wore on interminably. Coffee came in great tanks, and sandwiches in stacks. The men ate in gulps, swallowing great lumps of unchewed food, and all courted indigestion. The strain was terrific as the timing clock drew close to the minute.

Who—?

Then—came the zero minute.

There was an intake of breath as the clock chimed once, to mark the beginning of the period of probability. No man moved a muscle, yet all muscles were tense with expectancy. Nervously, Ben felt in his pocket and took out a cigarette, stuck it into his mouth, and fumbled for a match. "Match?" he grumbled.

Simpkins fumbled and shook his head.

"Nope," he said, and his voice was loud and raw.

Peter felt in his pocket and found a match.

He lit one and held it over. His eyes were solid on the scene, he did not want to miss it.

"Look out!" someone cried in a strident voice.

The mislink was approaching the circles again.

Peter turned and faced the place squarely, casting an eye across the men's faces. They were all set, and in every man's body were muscles tensed against moving forward.

How, asked Peter of his mind, can they expect anything to happen now? Every man is psychologically unable to move forward.

There came a stabbing pain, and Peter whirled with a wordless scream. The shock was searing. Instantaneously, he whirled, hitting his upflinging elbow against the wall. The obstruction in motion set him off balance, and he automatically moved a foot to regain it. His foot hit the foot of Ben, who was standing solidly, partly turned, his face just changing from solid-set to one of surprise.

The solid foot tripped Peter, and he fell forward. He flung the still-burning match from his fingers as he put both hands forward to break his fall. The loading deck came up to meet him, and his forward-flung hands went down toward—

The red line!

There was a coruscating flare of stars, bars, and screaming color in his mind, that contracted to a pinpoint and then expanded to infinity, leaving only peaceful blackness.

He returned to consciousness in the ambulance, but his return was brief. He was conscious only long enough to hear:

"Some day we'll lick it," said Ben.

"Only when you lick the regular accident rate. The trouble is," mused the medical attendant, "that people think there's something about mislink accidents that is different. Like either predestiny or something that makes you able to change the future. Fact of the matter is, it is the *past* that they're trying to change. Funny, to think of this guy getting it."

"Last one got it by a different set of factors," said Ben, "but you can't stop an accident that's already happened."

Peter Wright, adjuster for the solar system's greatest insurance company, Interplanetary Industrial Insurance, went under. His mind was whirling with a mixed desire to argue about temporal accidents, and the certain knowledge that he was in no position to mention the avoidance of same.

THE END.

THE ANALYTICAL LABORATORY

The Lab is crowded for space this month—very—so we'll merely report:
June Issue

Place	Story	Author	Points
1.	Chromium Helmet	Theodore Sturgeon	2.39
2.	Paradise	Clifford D. Simak	2.56
3.	Forecast	Raymond F. Jones	2.60
4.	The Bottled Men	Ross Rocklynne	3.65
5.	Chronokinesis of J. Hull	Anthony Boucher	3.78

THE EDITOR.

VINTAGE SEASON

by Lawrence O'Donnell



Everybody seemed to want the old house during May—and seemed willing to pay fantastic prices for the privilege. Strange tourists they were, too. The Café Society of another time.

Three people came up the walk to the old mansion just at dawn on a perfect May morning. Oliver Wilson in his pajamas watched them from an upper window through a haze of conflicting emotions, resentment predominant. He didn't want them there.

They were foreigners. He knew only that much about them. They had the curious name of Sancisco, and their first names, scrawled in loops on the lease, appeared to be Omerie, Klepb and Klia, though it was impossible as he looked down upon them now to sort them out by signature. He hadn't even been sure whether they would be men or women, and he had expected something a little less cosmopolitan.

Oliver's heart sank a little as

he watched them follow the taxi driver up the walk. He had hoped for less self-assurance in his unwelcome tenants, because he meant to force them out of the house if he could. It didn't look very promising from here.

The man went first. He was tall and dark, and he wore his clothes and carried his body with that peculiar arrogant assurance that comes from perfect confidence in every phase of one's being. The two women were laughing as they followed him. Their voices were light and sweet, and their faces were beautiful, each in its own exotic way, but the first thing Oliver thought of when he looked at them was, "Expensive!"

It was not only that patina of per-

fections that seemed to dwell in every line of their incredibly flawless garments. There are degrees of wealth beyond which wealth itself ceases to have significance. Oliver had seen before, on rare occasions, something like this assurance that the earth turning beneath their well-shod feet turned only to their whim.

It puzzled him a little in this case, because he had the feeling as the three came up the walk that the beautiful clothing they wore so confidently was not clothing they were accustomed to. There was a curious air of condescension in the way they moved. Like women in costume. They minced a little on their delicate high heels, held out an arm to stare at the cut of a sleeve, twisted now and then inside their garments as if the clothing sat strangely on them, as if they were accustomed to something entirely different.

And there was an elegance about the way the garments fitted them which even to Oliver looked strikingly unusual. Only an actress on the screen, who can stop time and the film to adjust every disarrayed fold so that she looks perpetually perfect, might appear thus elegantly clad. But let these women move as they liked, and each fold of their clothing followed perfectly with the moment and fell perfectly into place again. One might almost suspect the garments were not cut of ordinary cloth, or that they were cut according to some unknown, subtle scheme, with many artful hidden seams placed by a tailor incredibly skilled at his trade.

They seemed excited. They talked in high, clear, very sweet voices, looking up at the perfect blue and transparent sky in which dawn was still frankly pink. They looked at the trees on the lawn, the leaves translucently green with an under color of golden newness, the edges crimped from constriction in the recent bud.

Happily and with excitement in their voices they called to the man, and when he answered his own voice blended so perfectly in cadence with theirs that it sounded like three people singing together. Their voices, like their clothing, seemed to have an elegance far beyond the ordinary, to be under a control such as Oliver Wilson had never dreamed of before this morning.

The taxi driver brought up the luggage, which was of a beautiful pale stuff that did not look quite like leather, and had curves in it so subtle it seemed square until you saw how two or three pieces of it fitted together when carried, into a perfectly balanced block. It was scuffed, as if from much use. And though there was a great deal of it, the taxi man did not seem to find his burden heavy. Oliver saw him look down at it now and then and heft the weight incredulously.

One of the women had very black hair, and a skin like cream, and smoke-blue eyes heavy-lidded with the weight of her lashes. It was the other woman Oliver's gaze followed as she came up the walk. Her hair was a clear, pale red, and her face had a softness that he

thought would be like velvet to touch. She was tanned to a warm amber darker than her hair.

Just as they reached the porch steps the fair woman lifted her head and looked up. She gazed straight into Oliver's eyes and he saw that hers were very blue, and just a little amused, as if she had known he was there all along. Also they were frankly admiring.

Feeling a bit dizzy, Oliver hurried back to his room to dress.

"We are here on a vacation," the dark man said, accepting the keys. "We will not wish to be disturbed, as I made clear in our correspondence. You have engaged a cook and housemaid for us, I understand? We will expect you to move your own belongings out of the house, then, and—"

"Wait," Oliver said uncomfortably. "Something's come up. I—" He hesitated, not sure just how to present it. These were such increasingly odd people. Even their speech was odd. They spoke so distinctly, not slurring any of the words into contractions. English seemed as familiar to them as a native tongue, but they all spoke as trained singers sing, with perfect breath control and voice placement.

And there was a coldness in the man's voice, as if some gulf lay between him and Oliver, so deep no feeling of human contact could bridge it.

"I wonder," Oliver said, "if I could find you better living quarters somewhere else in town. There's a place across the street that—"

The dark woman said, "Oh, no!" in a lightly horrified voice, and all three of them laughed. It was cool, distant laughter that did not include Oliver.

The dark man said: "We chose this house carefully, Mr. Wilson. We would not be interested in living anywhere else."

Oliver said desperately, "I don't see why. It isn't even a modern house. I have two others in much better condition. Even across the street you'd have a fine view of the city. Here there isn't anything. The other houses cut off the view, and—"

"We engaged rooms here, Mr. Wilson," the man said with finality. "We expect to use them. Now will you make arrangements to leave as soon as possible?"

Oliver said, "No," and looked stubborn. "That isn't in the lease. You can live here until next month, since you paid for it, but you can't put me out. I'm staying."

The man opened his mouth to say something. He looked coldly at Oliver and closed it again. The feeling of aloofness was chill between them. There was a moment's silence. Then the man said,

"Very well. Be kind enough to stay out of our way."

It was a little odd that he didn't inquire Oliver's motives. Oliver was not yet sure enough of the man to explain. He couldn't very well say, "Since the lease was signed. I've been offered three times what the house is worth if I'll sell it before the end of May." He couldn't say, "I want the money,

and I'm going to use my own nuisance-value to annoy you until you're willing to move out." After all, there seemed no reason why they shouldn't. After seeing them, there seemed doubly no reason, for it was clear they must be accustomed to surroundings infinitely better than this time-worn old house.

It was very strange, the value this house had so suddenly acquired. There was no reason at all why two groups of semianonymous people should be so eager to possess it for the month of May.

In silence Oliver showed his tenants upstairs to the three big bedrooms across the front of the house. He was intensely conscious of the red-haired woman and the way she watched him with a sort of obviously covert interest, quite warmly, and with a curious undertone to her interest that he could not quite place. It was familiar, but elusive. He thought how pleasant it would be to talk to her alone, if only to try to capture that elusive attitude and put a name to it.

Afterward he went down to the telephone and called his fiancée.

Sue's voice squeaked a little with excitement over the wire.

"Oliver, so early? Why, it's hardly six yet. Did you tell them what I said? Are they going to go?"

"Can't tell yet. I doubt it. After all, Sue, I did take their money, you know."

"Oliver, they've got to go! You've got to do something!"

"I'm trying, Sue. But I don't like it."

"Well, there isn't any reason why they shouldn't stay somewhere else. And we're going to need that money. You'll just have to think of something, Oliver."

Oliver met his own worried eyes in the mirror above the telephone and scowled at himself. His straw-colored hair was tangled and there was a shining stubble on his pleasant, tanned face. He was sorry the red-haired woman had first seen him in this untidy condition. Then his conscience smote him at the sound of Sue's determined voice and he said:

"I'll try, darling. I'll try. But I did take their money."

They had, in fact, paid a great deal of money, considerably more than the rooms were worth even in that year of high prices and high wages. The country was just moving into one of those fabulous eras which are later referred to as the Gay Forties or the Golden Sixties—a pleasant period of national euphoria. It was a stimulating time to be alive—while it lasted.

"All right," Oliver said resignedly. "I'll do my best."

But he was conscious, as the next few days went by, that he was not doing his best. There were several reasons for that. From the beginning the idea of making himself a nuisance to his tenants had been Sue's, not Oliver's. And if Oliver had been a little less compliant or Sue a little less determined the whole project would never have got under way. Reason was on Sue's side, but—

For one thing, the tenants were so fascinating. All they said and did had a queer sort of inversion to it, as if a mirror had been held up to ordinary living and in the reflection showed strange variations from the norm. Their minds worked on a different basic premise, Oliver thought, from his own. They seemed to derive covert amusement from the most unamusing things; they patronized, they were aloof with a quality of cold detachment which did not prevent them from laughing inexplicably far too often for Oliver's comfort.

He saw them occasionally, on their way to and from their rooms. They were polite and distant, not, he suspected, from anger at his presence but from sheer indifference.

Most of the day they spent out of the house. The perfect May weather held unbroken and they seemed to give themselves up wholeheartedly to admiration of it, entirely confident that the warm, pale-gold sunshine and the scented air would not be interrupted by rain or cold. They were so sure of it that Oliver felt uneasy.

They took only one meal a day in the house, a late dinner. And their reactions to the meal were unpredictable. Laughter greeted some of the dishes, and a sort of delicate disgust others. No one would touch the salad, for instance. And the fish seemed to cause a wave of queer embarrassment around the table.

They dressed elaborately for each dinner. The man—his name was Omerie—looked extremely

handsome in his dinner clothes, but he seemed a little sulky and Oliver twice heard the women laughing because he had to wear black. Oliver entertained a sudden vision, for no reason, of the man in garments as bright and as subtly cut as the women's, and it seemed somehow very right for him. He wore even the dark clothing with a certain flamboyance, as if cloth-of-gold would be more normal for him.

When they were in the house at other meal times, they ate in their rooms. They must have brought a great deal of food with them, from whatever mysterious place they had come. Oliver wondered with increasing curiosity where it might be. Delicious odors drifted into the hall sometimes, at odd hours, from their closed doors. Oliver could not identify them, but almost always they smelled irresistible. A few times the food-smell was rather shockingly unpleasant, almost nauseating. It takes a connoisseur, Oliver reflected, to appreciate the decadent. And these people, most certainly, were connoisseurs.

Why they lived so contentedly in this huge, ramshackle old house was a question that disturbed his dreams at night. Or why they refused to move. He caught some fascinating glimpses into their rooms, which appeared to have been changed almost completely by additions he could not have defined very clearly from the brief sights he had of them. The feeling of luxury which his first glance at them had evoked was confirmed by the richness of the

hangings they had apparently brought with them, the half-glimpsed ornaments, the pictures on the walls, even the whiffs of exotic perfume that floated from half-open doors.

He saw the women go by him in the halls, moving softly through the brown dimness in their gowns so uncannily perfect in fit, so lushly rich, so glowingly colored they seemed unreal. That poise born of confidence in the subservience of the world gave them an imperious aloofness, but more than once Oliver, meeting the blue gaze of the woman with the red hair and the soft, tanned skin, thought he saw quickened interest there. She smiled at him in the dimness and went by in a haze of fragrance and a halo of incredible richness, and the warmth of the smile lingered after she had gone.

He knew she did not mean this aloofness to last between them. From the very first he was sure of that. When the time came she would make the opportunity to be alone with him. The thought was confusing and tremendously exciting. There was nothing he could do but wait, knowing she would see him when it suited her.

On the third day he lunched with Sue in a little downtown restaurant overlooking the great sweep of the metropolis across the river far below. Sue had shining brown curls and brown eyes, and her chin was a bit more prominent than is strictly accordant with beauty. From childhood Sue had known what she

wanted and how to get it, and it seemed to Oliver just now that she had never wanted anything quite so much as the sale of this house.

"It's such a marvelous offer for the old mausoleum," she said, breaking into a roll with a gesture of violence. "We'll never have a chance like that again, and prices are so high we'll need the money to start housekeeping. Surely you can do *something*, Oliver!"

"I'm trying," Oliver assured her uncomfortably.

"Have you heard anything more from that madwoman who wants to buy it?"

Oliver shook his head. "Her attorney phoned again yesterday. Nothing new. I wonder who she is."

"I don't think even the attorney knows. All this mystery—I don't like it, Oliver. Even those San Francisco people—What did they do today?"

Oliver laughed. "They spent about an hour this morning telephoning movie theaters in the city, checking up on a lot of third-rate films they want to see parts of."

"Parts of? But why?"

"I don't know. I think . . . oh, nothing. More coffee?"

The trouble was, he thought he did know. It was too unlikely a guess to tell Sue about, and without familiarity with the San Francisco oddities she would only think Oliver was losing his mind. But he had from their talk, a definite impression that there was an actor in bit parts in all these films whose performances they mentioned with something very near to awe. They referred to him as

Golconda, which didn't appear to be his name, so that Oliver had no way of guessing which obscure bit-player it was they admired so deeply. Golconda might have been the name of a character he had once played—and with superlative skill, judging by the comments of the Saniscosoes—but to Oliver it meant nothing at all.

"They do funny things," he said, stirring his coffee reflectively. "Yesterday Omerie—that's the man—came in with a book of poems published about five years ago, and all of them handled it like a first edition of Shakespeare. I never even heard of the author, but he seems to be a tin god in their country, wherever that is."

"You still don't know? Haven't they even dropped any hints?"

"We don't do much talking," Oliver reminded her with some irony.

"I know, but— Oh, well, I guess it doesn't matter. Go on, what else do they do?"

"Well, this morning they were going to spend studying 'Golconda' and his great art, and this afternoon I think they're taking a trip up the river to some sort of shrine I never heard of. It isn't very far, wherever it is, because I know they're coming back for dinner. Some great man's birthplace, I think—they promised to take home souvenirs of the place if they could get any. They're typical tourists, all right—if I could only figure out what's behind the whole thing. It doesn't make sense."

"Nothing about that house makes sense any more. I do wish—"

She went on in a petulant voice, but Oliver ceased suddenly to hear her, because just outside the door, walking with imperial elegance on her high heels, a familiar figure passed. He did not see her face, but he thought he would know that poise, that richness of line and motion, anywhere on earth.

"Excuse me a minute," he muttered to Sue, and was out of his chair before she could speak. He made the door in half a dozen long strides, and the beautifully elegant passer-by was only a few steps away when he got there. Then, with the words he had meant to speak already half uttered, he fell silent and stood there staring.

It was not the red-haired woman. It was not her dark companion. It was a stranger. He watched, speechless, while the lovely, imperious creature moved on through the crowd and vanished, moving with familiar poise and assurance and an equally familiar strangeness as if the beautiful and exquisitely fitted garments she wore were an exotic costume to her, as they had always seemed to the Sanisco women. Every other woman on the street looked untidy and ill-at-ease beside her. Walking like a queen, she melted into the crowd and was gone.

She came from *their* country, Oliver told himself dizzily. So someone else nearby had mysterious tenants in this month of perfect May weather. Someone else was puzzling in vain today over

the strangeness of the people from that nameless land.

In silence he went back to Sue.

The door stood invitingly ajar in the brown dimness of the upper hall. Oliver's steps slowed as he drew near it, and his heart began to quicken correspondingly. It was the red-haired woman's room, and he thought the door was not open by accident. Her name, he knew now, was Kleph.

The door creaked a little on its hinges and from within a very sweet voice said lazily, "Won't you come in?"

The room looked very different indeed. The big bed had been pushed back against the wall and a cover thrown over it that brushed the floor all around looked like soft-haired fur except that it was a pale blue-green and sparkled as if every hair were tipped with invisible crystals. Three books lay open on the fur, and a very curious-looking magazine with faintly luminous printing and a page of pictures that at first glance appeared three-dimensional. Also a tiny porcelain pipe encrusted with porcelain flowers, and a thin wisp of smoke floating from the bowl.

Above the bed a broad picture hung, framing a square of blue water so real Oliver had to look twice to be sure it was not rippling gently from left to right. From the ceiling swung a crystal globe on a glass cord. It turned gently, the light from the windows making curved rectangles in its sides.

Under the center window a sort

of chaise longue stood which Oliver had not seen before. He could only assume it was at least partly pneumatic and had been brought in in the luggage. There was a very rich-looking quilted cloth covering and hiding it, embossed all over in shining metallic patterns.

Kleph moved slowly from the door and sank upon the chaise longue with a little sigh of content. The couch accommodated itself to her body with what looked like delightful comfort. Kleph wriggled a little and then smiled up at Oliver.

"Do come on in. Sit over there, where you can see out the window. I love your beautiful spring weather. You know, there never was a May like it in civilized times." She said that quite seriously, her blue eyes on Oliver's, and there was a hint of patronage in her voice, as if the weather had been arranged especially for her.

Oliver started across the room and then paused and looked down in amazement at the floor, which felt unstable. He had not noticed before that the carpet was pure white, unspotted, and sank about an inch under the pressure of the feet. He saw then that Kleph's feet were bare, or almost bare. She wore something like gossamer buskins of filmy net, fitting her feet exactly. The bare soles were pink as if they had been rouged, and the nails had a liquid gleam like tiny mirrors. He moved closer, and was not as surprised as he should have been to see that they really were tiny mirrors, painted with some lacquer



that gave them reflecting surfaces.

"Do sit down," Kleph said again, waving a white-sleeved arm toward a chair by the window. She wore a garment that looked like short, soft down, loosely cut but following perfectly every motion she made. And there was something curiously different about her very shape today. When Oliver saw her in street clothes, she had the square-shouldered, slim-flanked figure that all women strive for, but here in her lounging robe she looked—well, different. There was an almost swanlike slope to her shoulders today, a roundness and softness to her body that looked unfamiliar and very appealing.

"Will you have some tea?" Kleph asked, and smiled charmingly.

A low table beside her held a tray and several small covered cups, lovely things with an inner glow like rose quartz, the color shining deeply as if from within layer upon layer of translucence. She took up one of the cups—there were no saucers—and offered it to Oliver.

It felt fragile and thin as paper in his hand. He could not see the contents because of the cup's cover, which seemed to be one with the cup itself and left only a thin open crescent at the rim. Steam rose from the opening.

Kleph took up a cup of her own and tilted it to her lips, smiling at Oliver over the rim. She was very beautiful. The pale red hair lay in shining loops against her head and

the corona of curls like a halo above her forehead might have been pressed down like a wreath. Every hair kept order as perfectly as if it had been painted on, though the breeze from the window stirred now and then among the softly shining strands.

Oliver tried the tea. Its flavor was exquisite, very hot, and the taste that lingered upon his tongue was like the scent of flowers. It was an extremely feminine drink. He sipped again, surprised to find how much he liked it.

The scent of flowers seemed to increase as he drank, swirling through his head like smoke. After the third sip there was a faint buzzing in his ears. The bees among the flowers, perhaps, he thought incoherently—and sipped again.

Kleph watched him, smiling.

"The others will be out all afternoon," she told Oliver comfortably. "I thought it would give us a pleasant time to be acquainted."

Oliver was rather horrified to hear himself saying, "What makes you talk like that?" He had had no idea of asking the question; something seemed to have loosened his control over his own tongue.

Kleph's smile deepened. She tipped the cup to her lips and there was indulgence in her voice when she said, "What do you mean by that?"

He waved his hand vaguely, noting with some surprise that at a glance it seemed to have six or seven fingers as it moved past his face.

"I don't know—precision, I guess. Why don't you say 'don't', for instance?"

"In our country we are trained to speak with precision," Kleph explained. "Just as we are trained to move and dress and think with precision. Any slovenliness is trained out of us in childhood. With you, of course—" She was polite. "With you, this does not happen to be a national fetish. With us, we have time for the amenities. We like them."

Her voice had grown sweeter and sweeter as she spoke, until by now it was almost indistinguishable from the sweetness of the flower-scent in Oliver's head, and the delicate flavor of the tea.

"What country do you come from?" he asked, and tilted the cup again to drink, mildly surprised to notice that it seemed inexhaustible.

Kleph's smile was definitely patronizing this time. It didn't irritate him. Nothing could irritate him just now. The whole room swam in a beautiful rosy glow as fragrant as the flowers.

"We must not speak of that, Mr. Wilson."

"But—" Oliver paused. After all, it was, of course, none of his business. "This is a vacation?" he asked vaguely.

"Call it a pilgrimage, perhaps."

"Pilgrimage?" Oliver was so interested that for an instant his mind came back into sharp focus. "To—what?"

"I should not have said that, Mr.

Wilson. Please forget it. Do you like the tea?"

"Very much."

"You will have guessed by now that it is not *only* tea, but an euphoriac."

Oliver stared. "Euphoriac?"

Kleph made a descriptive circle in the air with one graceful hand, and laughed. "You do not feel the effects yet? Surely you do?"

"I feel," Oliver said, "the way I'd feel after four whiskeys."

Kleph shuddered delicately. "We get our euphoria less painfully. And without the after-effects your barbarous alcohols used to have." She bit her lip. "Sorry. I must be euphoric myself to speak so freely. Please forgive me. Shall we have some music?"

Kleph leaned backward on the chaise longue and reached toward the wall beside her. The sleeve, falling away from her round tanned arm, left bare the inside of the wrist, and Oliver was startled to see there a long, rosy streak of fading scar. His inhibitions had dissolved in the fumes of the fragrant tea; he caught his breath and leaned forward to stare.

Kleph shook the sleeve back over the scar with a quick gesture. Color came into her face beneath the softly tinted tan and she would not meet Oliver's eyes. A queer shame seemed to have fallen upon her.

Oliver said tactlessly, "What is it? What's the matter?"

Still she would not look at him.

Much later he understood that shame and knew she had reason for it. Now he listened blankly as she said:

"Nothing . . . nothing at all. A . . . an inoculation. All of us . . . oh, never mind. Listen to the music."

This time she reached out with the other arm. She touched nothing, but when she had held her hand near the wall a sound breathed through the room. It was the sound of water, the sighing of waves receding upon long, sloped beaches. Oliver followed Kleph's gaze toward the picture of the blue water above the bed.

The waves there were moving. More than that, the point of vision moved. Slowly the seascape drifted past, moving with the waves, following them toward shore. Oliver watched, half-hypnotized by a motion that seemed at the time quite acceptable and not in the least surprising.

The waves lifted and broke in creaming foam and ran seething up a sandy beach. Then through the sound of the water music began to breathe, and through the water itself a man's face dawned in the frame, smiling intimately into the room. He held an oddly archaic musical instrument, lute-shaped, its body striped light and dark like a melon and its long neck bent back over his shoulder. He was singing, and Oliver felt mildly astonished at the song. It was very familiar and very odd indeed. He groped through the unfamiliar rhythms and found at last a

thread to catch the tune by—it was "Make-Believe," from "Showboat," but certainly a showboat that had never steamed up the Mississippi.

"What's he doing to it?" he demanded after a few moments of outraged listening. "I never heard anything like it!"

Kleph laughed and stretched out her arm again. Enigmatically she said, "We call it kyting. Never mind. How do you like this?"

It was a comedian, a man in semi-clown make-up, his eyes exaggerated so that they seemed to cover half his face. He stood by a broad glass pillar before a dark curtain and sang a gay, staccato song interspersed with patter that sounded impromptu, and all the while his left hand did an intricate, musical tattoo of the nailtips on the glass of the column. He strolled around and around it as he sang. The rhythms of his fingernails blended with the song and swung widely away into patterns of their own, and blended again without a break.

It was confusing to follow. The song made even less sense than the monologue, which had something to do with a lost slipper and was full of allusions which made Kleph smile, but were utterly unintelligible to Oliver. The man had a dry, brittle style that was not very amusing, though Kleph seemed fascinated. Oliver was interested to see in him an extension and a variation of that extreme smooth confidence which marked all three of the Santicos. Clearly a racial trait, he thought.

Other performances followed, some of them fragmentary as if lifted out of a completer version. One he knew. The obvious, stirring melody struck his recognition before the figures—marching men against a haze, a great banner rolling backward above them in the smoke, foreground figures striding gigantically and shouting in rhythm, "Forward, forward the lily banners go!"

The music was tinny, the images blurred and poorly colored, but there was a gusto about the performance that caught at Oliver's imagination. He stared, remembering the old film from long ago. Dennis King and a ragged chorus, singing "The Song of the Vagabonds" from—was it "Vagabond King?"

"A very old one," Kleph said apologetically. "But I like it."

The steam of the intoxicating tea swirled between Oliver and the picture. Music swelled and sank through the room and the fragrant fumes and his own euphoric brain. Nothing seemed strange. He had discovered how to drink the tea. Like nitrous oxide, the effect was not cumulative. When you reached a peak of euphoria, you could not increase the peak. It was best to wait for a slight dip in the effect of the stimulant before taking more.

Otherwise it had most of the effects of alcohol—everything after awhile dissolved into a delightful fog through which all he saw was uniformly enchanting and partook of the qualities of a dream. He

questioned nothing. Afterward he was not certain how much of it he really had dreamed.

There was the dancing doll, for instance. He remembered it quite clearly, in sharp focus—a tiny, slender woman with a long-nosed, dark-eyed face and a pointed chin. She moved delicately across the white rug—knee-high, exquisite. Her features were as mobile as her body, and she danced lightly, with resounding strokes of her toes, each echoing like a bell. It was a formalized sort of dance, and she sang breathlessly in accompaniment, making amusing little grimaces. Certainly it was a portrait-doll, animated to mimic the original perfectly in voice and motion. Afterward, Oliver knew he must have dreamed it.

What else happened he was quite unable to remember later. He knew Kleph had said some curious things, but they all made sense at the time, and afterward he couldn't remember a word. He knew he had been offered little glittering candies in a transparent dish, and that some of them had been delicious and one or two so bitter his tongue still curled the next day when he recalled them, and one—Kleph sucked luxuriantly on the same kind—of a taste that was actively nauseating.

As for Kleph herself—he was frantically uncertain the next day what had really happened. He thought he could remember the softness of her white-downed arms clasped at the back of his neck, while she laughed up at him and

exhaled into his face the flowery fragrance of the tea. But beyond that he was totally unable to recall anything, for awhile.

There was a brief interlude later, before the oblivion of sleep. He was almost sure he remembered a moment when the other two Sanciscoes stood looking down at him, the man scowling, the smoky-eyed woman smiling a derisive smile.

The man said, from a vast distance, "Kleph, you know this is against every rule—" His voice began in a thin hum and soared in fantastic flight beyond the range of hearing. Oliver thought he remembered the dark woman's laughter, thin and distant too, and the hum of her voice like bees in flight.

"Kleph, Kleph, you silly little fool, can we never trust you out of sight?"

Kleph's voice then said something that seemed to make no sense. "What does it matter, *here?*"

The man answered in that buzzing, faraway lurn. "—matter of giving your bond before you leave, not to interfere. You know you signed the rules—"

Kleph's voice, nearer and more intelligible: "But here the difference is . . . it does not matter *here!* You both know that. How could it matter?"

Oliver felt the downy brush of her sleeve against his cheek, but he saw nothing except the slow, smoke-like ebb and flow of darkness past his eyes. He heard the voices wrangle musically from far away, and he heard them cease.

When he woke the next morn-

ing, alone in his own room, he woke with the memory of Kleph's eyes upon him very sorrowfully, her lovely tanned face looking down on him with the red hair falling fragrantly on each side of it and sadness and compassion in her eyes. He thought he had probably dreamed that. There was no reason why anyone should look at him with such sadness.

Sue telephoned that day.

"Oliver, the people who want to buy the house are here. That mad-woman and her husband. Shall I bring them over?"

Oliver's mind all day had been hazy with the vague, bewildering memories of yesterday. Kleph's face kept floating before him, blotting out the room. He said, "What? I . . . oh, well, bring them if you want to. I don't see what good it'll do."

"Oliver, what's wrong with you? We agreed we needed the money, didn't we? I don't see how you can think of passing up such a wonderful bargain without even a struggle. We could get married and buy our own house right away, and you know we'll never get such an offer again for that old trash-heap. Wake up, Oliver!"

Oliver made an effort. "I know, Sue—I know. But—"

"Oliver, you've got to think of something!" Her voice was imperious.

He knew she was right. Kleph or no Kleph, the bargain shouldn't be ignored if there were any way at all of getting the tenants out.

He wondered again what made the place so suddenly priceless to so many people. And what the last week in May had to do with the value of the house.

A sudden sharp curiosity pierced even the vagueness of his mind today. May's last week was so important that the whole sale of the house stood or fell upon occupancy by then. Why? *Why?*

"What's going to happen next week?" he asked rhetorically of the telephone. "Why can't they wait till these people leave? I'd knock a couple of thousand off the price if they'd—"

"You would not, Oliver Wilson! I can buy all our refrigeration units with that extra money. You'll just have to work out some way to give possession by next week, and that's that. You hear me?"

"Keep your shirt on," Oliver said pacifically. "I'm only human, but I'll try."

"I'm bringing the people over right away," Sue told him. "While the Saniscoces are still out. Now you put your mind to work and think of something, Oliver." She paused, and her voice was reflective when she spoke again. "They're . . . awfully odd people, darling."

"Odd?"

"You'll see."

It was an elderly woman and a very young man who trailed Sue up the walk. Oliver knew immediately what had struck Sue about them. He was somehow not at all surprised to see that both wore their clothing with the familiar air

of elegant self-consciousness he had come to know so well. They, too, looked around them at the beautiful, sunny afternoon with conscious enjoyment and an air of faint condescension. He knew before he heard them speak how musical their voices would be and how meticulously they would pronounce each word.

There was no doubt about it. The people of Kleph's mysterious country were arriving here in force—for something. For the last week of May? He shrugged mentally; there was no way of guessing—yet. One thing only was sure: all of them must come from that nameless land where people controlled their voices like singers and their garments like actors who could stop the reel of time itself to adjust every disordered fold.

The elderly woman took full charge of the conversation from the start. They stood together on the rickety, unpainted porch, and Sue had no chance even for introductions.

"Young man, I am Madame Holfa. This is my husband." Her voice had an under-running current of harshness, which was perhaps age. And her face looked almost corsetted, the loose flesh coerced into something like firmness by some invisible method Oliver could not guess at. The make-up was so skillful he could not be certain it was make-up at all, but he had a definite feeling that she was much older than she looked. It would have taken a lifetime of command to put so much authority into the

harsh, deep, musically controlled voice.

The young man said nothing. He was very handsome. His type, apparently, was one that does not change much no matter in what culture or country it may occur. He wore beautifully tailored garments and carried in one gloved hand a box of red leather, about the size and shape of a book.

Madame Hollia went on. "I understand your problem about the house. You wish to sell to me, but are legally bound by your lease with Omerie and his friends. Is that right?"

Oliver nodded. "But—"

"Let me finish. If Omerie can be forced to vacate before next week, you will accept our offer. Right? Very well. Hara!" She nodded to the young man beside her. He jumped to instant attention, bowed slightly, said, "Yes, Hollia," and slipped a gloved hand into his coat.

Madame Hollia took the little object offered on his palm, her gesture as she reached for it almost imperial, as if royal robes swept from her outstretched arm.

"Here," she said, "is something that may help us. My dear"—she held it out to Sue—"if you can hide this somewhere about the house, I believe your unwelcome tenants will not trouble you much longer."

Sue took the thing curiously. It looked like a tiny silver box, no more than an inch square, indented at the top and with no line to show it could be opened.

"Wait a minute," Oliver broke in uneasily. "What is it?"

"Nothing that will harm anyone. I assure you."

"Then what—"

Madame Hollia's imperious gesture at one sweep silenced him and commanded Sue forward. "Go on, my dear. Hurry, before Omerie comes back. I can assure you there is no danger to anyone."

Oliver broke in determinedly. "Madame Hollia, I'll have to know what your plans are. I—"

"Oh, Oliver, please!" Sue's fingers closed over the silver cube. "Don't worry about it. I'm sure Madame Hollia knows best. Don't you want to get those people out?"

"Of course I do. But I don't want the house blown up or—"

Madame Hollia's deep laughter was indulgent. "Nothing so crude. I promise you, Mr. Wilson. Remember, we want the house! Hurry, my dear."

Sue nodded and slipped hastily past Oliver into the hall. Out-numbered, he subsided uneasily. The young man, Hara, tapped a negligent foot and admired the sunlight as they waited. It was an afternoon as perfect as all of May had been, translucent gold, balmy with an edge of chill lingering in the air to point up a perfect contrast with the summer to come. Hara looked around him confidently, like a man paying just tribute to a stage-set provided wholly for himself. He even glanced up at a drone from above and followed the course of a big transcontinental plane half dis-

solved in golden haze high in the sun. "Quaint," he murmured in a gratified voice.

Sue came back and slipped her hand through Oliver's arm, squeezing excitedly. "There," she said. "How long will it take, Madame Hollia?"

"That will depend, my dear. Not very long. Now, Mr. Wilson, one word with you. You live here also, I understand? For your own comfort, take my advice and—"

Somewhere within the house a door slammed and a clear, high voice rang wordlessly up a rippling scale. Then there was the sound of feet on the stairs, and a single line of song. "*Come hider, love, to me—*"

Hara started, almost dropping the red leather box he held.

"Kleph!" he said in a whisper. "Or Klia. I know they both just came on from Canterbury. But I thought—"

"Hush." Madame Hollia's features composed themselves into an imperious blank. She breathed triumphantly through her nose, drew back upon herself and turned an imposing facade to the door.

Kleph wore the same softly downy robe Oliver had seen before, except that today it was not white, but a pale, clear blue that gave her tan an apricot flush. She was smiling.

"Why, Hollia!" Her tone was at its most musical. "I thought I recognized voices from home. How nice to see you. No one knew you were coming to the—" She

broke off and glanced at Oliver and then away again. "Hara, too," she said. "What a pleasant surprise."

Sue said flatly, "When did you get back?"

Kleph smiled at her. "You must be the little Miss Johnson. Why, I did not go out at all. I was tired of sight-seeing. I have been napping in my room."

Sue drew in her breath in something that just escaped being a disbelieving sniff. A look flashed between the two women, and for an instant held—and that instant was timeless. It was an extraordinary pause in which a great deal of wordless interplay took place in the space of a second.

Oliver saw the quality of Kleph's smile at Sue, that same look of quiet confidence he had noticed so often about all of these strange people. He saw Sue's quick inventory of the other woman, and he saw how Sue squared her shoulders and stood up straight, smoothing down her summer frock over her flat hips so that for an instant she stood posed consciously, looking down on Kleph. It was deliberate. Bewildered, he glanced again at Kleph.

Kleph's shoulders sloped softly, her robe was belted to a tiny waist and hung in deep folds over frankly rounded hips. Sue's was the fashionable figure—but Sue was the first to surrender.

Kleph's smile did not falter. But in the silence there was an abrupt reversal of values, based on no more than the measureless quality of Kleph's confidence in herself, the



quiet, assured smile. It was suddenly made very clear that fashion is not a constant. Kleph's curious, out-of-mode curves without warning became the norm, and Sue was a queer, angular, half-masculine creature beside her.

Oliver had no idea how it was done. Somehow the authority passed in a breath from one woman to the other. Beauty is almost wholly a matter of fashion; what is beautiful today would have been grotesque a couple of generations ago and will be grotesque a hundred years ahead. It will be worse than grotesque; it will be outmoded and therefore faintly ridiculous.

Sue was that. Kleph had only to exert her authority to make it clear to everyone on the porch. Kleph was a beauty, suddenly and

very convincingly, beautiful in the accepted mode, and Sue was amusingly old-fashioned, an anachronism in her lithe, square-shouldered slimness. She did not belong. She was grotesque among these strangely immaculate people.

Sue's collapse was complete. But pride sustained her, and bewilderment. Probably she never did grasp entirely what was wrong. She gave Kleph one glance of burning resentment and when her eyes came back to Oliver there was suspicion in them, and mistrust.

Looking backward later, Oliver thought that in that moment, for the first time clearly, he began to suspect the truth. But he had no time to ponder it, for after the brief instant of enmity the three people from—elsewhere—began to speak

all at once, as if in a belated attempt to cover something they did not want noticed.

Kleph said, "This beautiful weather—" and Madame Hollia said, "So fortunate to have this house—" and Hara, holding up the red leather box, said loudest of all, "Cenbe sent you this, Kleph. His latest."

Kleph put out both hands for it eagerly, the eiderdown sleeves falling back from her rounded arms. Oliver had a quick glimpse of that mysterious scar before the sleeve fell back, and it seemed to him that there was the faintest trace of a similar scar vanishing into Hara's cuff as he let his own arm drop.

"Cenbe!" Kleph cried, her voice high and sweet and delighted. "How wonderful! What period?"

"From November 1664," Hara said. "London, of course, though I think there may be some counterpoint from the 1347 November. He hasn't finished—of course." He glanced almost nervously at Oliver and Sue. "A wonderful example," he said quickly. "Marvelous. If you have the taste for it, of course."

Madame Hollia shuddered with ponderous delicacy. "That man!" she said. "Fascinating, of course—a great man. But—so advanced!"

"It takes a connoisseur to appreciate Cenbe's work fully," Kleph said in a slightly tart voice. "We all admit that."

"Oh yes, we all bow to Cenbe," Hollia conceded. "I confess the

man terrifies me a little, my dear. Do we expect him to join us?"

"I suppose so," Kleph said. "If his—work—is not yet finished, then of course. You know Cenbe's tastes."

Hollia and Hara laughed together. "I know when to look for him, then," Hollia said. She glanced at the staring Oliver and the subdued but angry Sue, and with a commanding effort brought the subject back into line.

"So fortunate, my dear Kleph, to have this house," she declared heavily. "I saw a tridimensional of it—afterward—and it was still quite perfect. Such a fortunate coincidence. Would you consider parting with your lease, for a consideration? Say, a coronation seat at—"

"Nothing could buy us, Hollia," Kleph told her gaily, clasping the red box to her bosom.

Hollia gave her a cool stare. "You may change your mind, my dear Kleph," she said pontifically. "There is still time. You can always reach us through Mr. Wilson here. We have rooms up the street in the Montgomery House—nothing like yours, of course, but they will do. For us, they will do."

Oliver blinked. The Montgomery House was the most expensive hotel in town. Compared to this collapsing old ruin, it was a palace. There was no understanding these people. Their values seemed to have suffered a complete reversal.

Madame Hollia moved majestically toward the steps.

"Very pleasant to see you, my dear," she said over one well-padded shoulder. "Enjoy your stay. My regards to Omerie and Klia. Mr. Wilson—" she nodded toward the walk. "A word with you."

Oliver followed her down toward the street. Madame Hollia paused halfway there and touched his arm.

"One word of advice," she said huskily. "You say you sleep here? Move out, young man. Move out before tonight."

Oliver was searching in a half-desultory fashion for the hiding place Sue had found for the mysterious silver cube, when the first sounds from above began to drift down the stairwell toward him. Kleph had closed her door, but the house was old and strange qualities in the noise overhead seemed to seep through the woodwork like an almost visible stain.

It was music, in a way. But much more than music. And it was a terrible sound, the sounds of calamity and of all human reaction to calamity, everything from hysteria to heartbreak, from irrational joy to rationalized acceptance.

The calamity was—single. The music did not attempt to correlate all human sorrows; it focused sharply upon one and followed the ramifications out and out. Oliver recognized these basics to the sounds in a very brief moment. They were essentials, and they

seemed to beat into his brain with the first strains of the music which was so much more than music.

But when he lifted his head to listen he lost all grasp upon the meaning of the noise and it was sheer medley and confusion. To think of it was to blur it hopelessly in the mind, and he could not recapture that first instant of un-reasoning acceptance.

He went upstairs almost in a daze, hardly knowing what he was doing. He pushed Kleph's door open. He looked inside—

What he saw there he could not afterward remember except in a blurring as vague as the blurred ideas the music roused in his brain. Half the room had vanished behind a mist, and the mist was a three-dimensional screen upon which were projected— He had no words for them. He was not even sure if the projections were visual. The mist was spinning with motion and sound, but essentially it was neither sound nor motion that Oliver saw.

This was a work of art. Oliver knew no name for it. It transcended all art-forms he knew, blended them, and out of the blend produced subtleties his mind could not begin to grasp. Basically, this was the attempt of a master-composer to correlate every essential aspect of a vast human experience into something that could be conveyed in a few moments to every sense at once.

The shifting visions on the screen were not pictures in themselves, but hints of pictures, subtly

selected outlines that plucked at the mind and with one deft touch set whole chords ringing through the memory. Perhaps each beholder reacted differently, since it was in the eye and the mind of the beholder that the truth of the picture lay. No two would be aware of the same symphonic panorama, but each would see essentially the same terrible story unfold.

Every sense was touched by that deft and merciless genius. Color and shape and motion flickered in the screen, hinting much, evoking unbearable memories deep in the mind; odors floated from the screen and touched the heart of the beholder more poignantly than anything visual could do. The skin crawled sometimes as if to a tangible cold hand laid upon it. The tongue curled with remembered bitterness and remembered sweet.

It was outrageous. It violated the innermost privacies of a man's mind, called up secret things long ago walled off behind mental scar tissue, forced its terrible message upon the beholder relentlessly though the mind might threaten to crack beneath the stress of it.

And yet, in spite of all this vivid awareness, Oliver did not know what calamity the screen portrayed. That it was real, vast, overwhelmingly dreadful he could not doubt. That it had once happened was unmistakable. He caught flashing glimpses of human faces distorted with grief and disease and death—real faces, faces that had once lived and were seen now in the instant of dying. He

saw men and women in rich clothing superimposed in panorama upon reeling thousands of ragged folk, great throngs of them swept past the sight in an instant, and he saw that death made no distinction among them.

He saw lovely women laugh and shake their curls, and the laughter shriek into hysteria and the hysteria into music. He saw one man's face, over and over—a long, dark, saturnine face, deeply lined, sorrowful, the face of a powerful man wise in worldliness, urbane—and helpless. That face was for awhile a recurring motif, always more tortured, more helpless than before.

The music broke off in the midst of a rising glide. The mist vanished and the room reappeared before him. The anguished dark face for an instant seemed to Oliver printed everywhere he looked, like after-vision on the eyelids. He knew that face. He had seen it before, not often, but he should know its name—

"Oliver, Oliver—" Kleph's sweet voice came out of a fog at him. He was leaning dizzily against the doorpost looking down into her eyes. She, too, had that dazed blankness he must show on his own face. The power of the dreadful symphony still held them both. But even in this confused moment Oliver saw that Kleph had been enjoying the experience.

He felt sickened to the depths of his mind, dizzy with sickness and revulsion because of the super-

imposing of human miseries he had just beheld. But Kleph—only appreciation showed upon her face. To her it had been magnificence, and magnificence only.

Irrelevantly Oliver remembered the nauseating candies she had enjoyed, the nauseating odors of strange food that drifted sometimes through the hall from her room.

What was it she had said downstairs a little while ago? Connoisseur, that was it. Only a connoisseur could appreciate work as—as advanced—as the work of someone called Cenbe.

A whiff of intoxicating sweetness curled past Oliver's face. Something cool and smooth was pressed into his hand.

"Oh, Oliver, I am so sorry," Kleph's voice murmured contritely.

"Here, drink the euphoriac and you will feel better. Please drink!"

The familiar fragrance of the hot sweet tea was on his tongue before he knew he had complied. Its relaxing fumes floated up through his brain and in a moment or two the world felt stable around him again. The room was as it had always been. And Kleph—

Her eyes were very bright. Sympathy showed in them for him, but for herself she was still brimmed with the high elation of what she had just been experiencing.

"Come and sit down," she said gently, tugging at his arm. "I am so sorry—I should not have played that over, where you could hear it. I have no excuse, really. It was

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only that I forgot what the effect might be on one who had never heard Cenbe's symphonies before. I was so impatient to see what he had done with . . . with his new subject. I am so very sorry, Oliver!"

"What was it?" His voice sounded steadier than he had expected. The tea was responsible for that. He sipped again, glad of the consoling euphoria its fragrance brought.

"A . . . a composite interpretation of . . . oh, Oliver, you know I must not answer questions!"

"But—"

"No—drink your tea and forget what it was you saw. Think of other things. Here, we will have music—another kind of music, something gay—"

She reached for the wall beside the window, and as before, Oliver saw the broad framed picture of blue water above the bed ripple and grow pale. Through it another scene began to dawn like shapes rising beneath the surface of the sea.

He had a glimpse of a dark-curtained stage upon which a man in a tight dark tunic and hose moved with a restless, sidelong pace, his hands and face startlingly pale against the black about him. He limped; he had a crooked back and he spoke familiar lines. Oliver had seen John Barrymore once as the Crook-Backed Richard, and it seemed vaguely outrageous to him that any other actor should essay that difficult part. This one he had never seen before, but the

man had a fascinatingly smooth manner and his interpretation of the Plantagenet king was quite new and something Shakespeare probably never dreamed of.

"No," Kleph said, "not this. Nothing gloomy." And she put out her hand again. The nameless new Richard faded and there was a swirl of changing pictures and changing voices, all blurred together, before the scene steadied upon a stage-full of dancers in pastel ballet skirts, drifting effortlessly through some complicated pattern of motion. The music that went with it was light and effortless too. The room filled up with the clear, floating melody.

Oliver set down his cup. He felt much surer of himself now, and he thought the euphoric had done all it could for him. He didn't want to blur again mentally. There were things he meant to learn about. Now. He considered how to begin.

Kleph was watching him. "That Hollis," she said suddenly. "She wants to buy the house?"

Oliver nodded. "She's offering a lot of money. Sue's going to be awfully disappointed if—" He hesitated. Perhaps, after all, Sue would not be disappointed. He remembered the little silver cube with the enigmatic function and he wondered if he should mention it to Kleph. But the euphoric had not reached that level of his brain, and he remembered his duty to Sue and was silent.

Kleph shook her head, her eyes

upon his warm with—was it sympathy?

"Believe me," she said, "you will not find that—important—after all. I promise you, Oliver."

He stared at her. "I wish you'd explain."

Kleph laughed on a note more sorrowful than amused. But it occurred to Oliver suddenly that there was no longer condescension in her voice. Imperceptibly that air of delicate amusement had vanished from her manner toward him. The cool detachment that still marked Omerie's attitude, and Klia's, was not in Kleph's any more. It was a subtlety he did not think she could assume. It had to come spontaneously or not at all. And for no reason he was willing to examine, it became suddenly very important to Oliver that Kleph should not condescend to him, that she should feel toward him as he felt toward her. He would not think of it.

He looked down at his cup, rose-quartz, exhaling a thin plume of steam from its crescent-slit opening. This time, he thought, maybe he could make the tea work for him. For he remembered how it loosened the tongue, and there was a great deal he needed to know. The idea that had come to him on the porch in the instant of silent rivalry between Kleph and Sue seemed now too fantastic to entertain. But some answer there must be.

Kleph herself gave him the opening.

"I must not take too much euphoriac this afternoon," she said, smiling at him over her pink cup. "It will make me drowsy, and we are going out this evening with friends."

"More friends?" Oliver asked. "From your country?"

Kleph nodded. "Very dear friends we have expected all this week."

"I wish you'd tell me," Oliver said bluntly, "where it is you come from. It isn't from here. Your culture is too different from ours—even your names—" He broke off as Kleph shook her head.

"I wish I could tell you. But that is against all the rules. It is even against the rules for me to be here talking to you now."

"What rules?"

She made a helpless gesture. "You must not ask me, Oliver." She leaned back on the chaise longue that adjusted itself luxuriously to the motion, and smiled very sweetly at him. "We must not talk about things like that. Forget it, listen to the music, enjoy yourself if you can—" She closed her eyes and laid her head back against the cushions. Oliver saw the round tanned throat swell as she began to hum a tune. Eyes still closed, she sang again the words she had sung upon the stairs. "*Come hider, love, to me—*"

A memory clicked over suddenly in Oliver's mind. He had never heard the queer, lagging tune before, but he thought he knew the words. He remembered what Holia's husband had said when he

heard that line of song, and he leaned forward. She would not answer a direct question, but perhaps—

"Was the weather this warm in Canterbury?" he asked, and held his breath. Kleph hummed another line of the song and shook her head, eyes still closed.

"It was autumn there," she said. "But bright, wonderfully bright. Even their clothing, you know . . . everyone was singing that new song, and I can't get it out of my head." She sang another line, and the words were almost unintelligible—English, yet not an English Oliver could understand.

He stood up. "Wait," he said. "I want to find something. Back in a minute."

She opened her eyes and smiled mistily at him, still humming. He went downstairs as fast as he could—the stairway swayed a little, though his head was nearly clear now—and into the library. The book he wanted was old and battered, interlined with the penciled notes of his college days. He did not remember very clearly where the passage he wanted was, but he thumbed fast through the columns and by sheer luck found it within a few minutes. Then he went back upstairs, feeling a strange emptiness in his stomach because of what he almost believed now.

"Kleph," he said firmly, "I know that song. I know the year it was new."

Her lids rose slowly; she looked at him through a mist of euphoric.

He was not sure she had understood. For a long moment she held him with her gaze. Then she put out one downy-sleeved arm and spread her tanned fingers toward him. She laughed deep in her throat.

"*Come hider, love, to me,*" she said.

He crossed the room slowly, took her hand. The fingers closed warmly about his. She pulled him down so that he had to kneel beside her. Her other arm lifted. Again she laughed, very softly, and closed her eyes, lifting her face to his.

The kiss was warm and long. He caught something of her own euphoria from the fragrance of the tea breathed into his face. And he was startled at the end of the kiss, when the clasp of her arms loosened about his neck, to feel the sudden rush of her breath against his cheek. There were tears on her face, and the sound she made was a sob.

He held her off and looked down in amazement. She sobbed once more, caught a deep breath, and said, "Oh, Oliver, Oliver—" Then she shook her head and pulled free, turning away to hide her face. "I . . . I am sorry," she said unevenly. "Please forgive me. It does not matter . . . I know it does not matter . . . but—"

"What's wrong? What doesn't matter?"

"Nothing. Nothing . . . please forget it. Nothing at all." She got a handkerchief from the table and blew her nose, smiling at him

with an effect of radiance through the tears.

Suddenly he was very angry. He had heard enough evasions and mystifying half-truths. He said roughly, "Do you think I'm crazy? I know enough now to—"

"Oliver, please!" She held up her own cup, steaming fragrantly. "Please, no more questions. Here, euphoria is what you need, Oliver. Euphoria, not answers."

"What year was it when you heard that song in Canterbury?" he demanded, pushing the cup aside.

She blinked at him, tears bright on her lashes. "Why . . . what year do you think?"

"I know," Oliver told her grimly. "I know the year that song was popular. I know you just came from Canterbury—Hollia's husband said so. It's May now, but it was autumn in Canterbury, and you just came from there, so lately the song you heard is still running through your head. Chaucer's Pardoner sang that song sometime around the end of the fourteenth century. Did you see Chaucer, Kleph? What was it like in England that long ago?"

Kleph's eyes fixed his for a silent moment. Then her shoulders drooped and her whole body went limp with resignation beneath the soft blue robe. "I am a fool," she said gently. "It must have been easy to trap me. You really believe—what you say?"

Oliver nodded.

She said in a low voice, "Few people do believe it. That is one of our maxims, when we travel. We

are safe from much suspicion because people before The Travel began will not believe."

The emptiness in Oliver's stomach suddenly doubled in volume. For an instant the bottom dropped out of time itself and the universe was unsteady about him. He felt sick. He felt naked and helpless. There was a buzzing in his ears and the room dimmed before him.

He had not really believed—not until this instant. He had expected some rational explanation from her that would tidy all his wild half-thoughts and suspicions into something a man could accept as believable. Not this.

Kleph dabbed at her eyes with the pale-blue handkerchief and smiled tremulously.

"I know," she said. "It must be a terrible thing to accept. To have all your concepts turned upside down— We know it from childhood, of course, but for you . . . here, Oliver. The euphoric will make it easier."

He took the cup, the faint stain of her lip rouge still on the crescent opening. He drank, feeling the dizzy sweetness spiral through his head, and his brain turned a little in his skull as the volatile fragrance took effect. With that turning, focus shifted and all his values with it.

He began to feel better. The flesh settled on his bones again, and the warm clothing of temporal assurance settled upon his flesh, and he was no longer naked and

reeing in the vortex of unstable time.

"The story is very simple, really," Kleph said. "We—travel. Our own time is not terribly far ahead of yours. No, I must not say how far. But we still remember your songs and poets and some of your great actors. We are a people of much leisure, and we cultivate the art of enjoying ourselves.

"This is a tour we are making—a tour of a year's seasons. Vintage seasons. That autumn in Canterbury was the most magnifi-

cent autumn our researchers could discover anywhere. We rode in a pilgrimage to the shrine—it was a wonderful experience, though the clothing was a little hard to manage.

"Now this month of May is almost over—the loveliest May in recorded times. A perfect May in a wonderful period. You have no way of knowing what a good, gay period you live in, Oliver. The very feeling in the air of the cities—that wonderful national confidence and happiness—everything going as smoothly as a dream. There were other Mays with fine



weather, but each of them had a war or a famine, or something else wrong." She hesitated, grimaced and went on rapidly. "In a few days we are to meet at a coronation in Rome," she said. "I think the year will be 800—Christmas-time. We—"

"But why," Oliver interrupted, "did you insist on this house? Why do the others want to get it away from you?"

Kleph stared at him. He saw the tears rising again in small bright crescents that gathered above her lower lids. He saw the look of obstinacy that came upon her soft, tanned face. She shook her head.

"You must not ask me that." She held out the steaming cup. "Here, drink and forget what I have said. I can tell you no more. No more at all."

When he woke, for a little while he had no idea where he was. He did not remember leaving Kleph or coming to his own room. He didn't care, just then. For he woke to a sense of overwhelming terror.

The dark was full of it. His brain rocked on waves of fear and pain. He lay motionless, too frightened to stir, some atavistic memory warning him to lie quiet until he knew from which direction the danger threatened. Reasonless panic broke over him in a tidal flow; his head ached with its violence and the dark throbbed to the same rhythms.

A knock sounded at the door.

Omerie's deep voice said, "Wilson! Wilson, are you awake?"

Oliver tried twice before he had breath to answer. "Y-yes—what is it?"

The knob rattled. Omerie's dim figure groped for the light switch and the room sprang into visibility. Omerie's face was drawn with strain, and he held one hand to his head as if it ached in rhythm with Oliver's.

It was in that moment, before Omerie spoke again, that Oliver remembered Hollia's warning. "Move out, young man—move out before tonight." Wildly he wondered what threatened them all in this dark house that throbbed with the rhythms of pure terror.

Omerie in an angry voice answered the unspoken question.

"Someone has planted a subsonic in the house, Wilson. Kleph thinks you may know where it is."

"S-subsonic?"

"Call it a gadget," Omerie interpreted impatiently. "Probably a small metal box that—"

Oliver said, "Oh," in a tone that must have told Omerie everything.

"Where is it?" he demanded. "Quick. Let's get this over."

"I d-don't know." With an effort Oliver controlled the chattering of his teeth. "Y-you mean all this—all this is just from the little box?"

"Of course. Now tell me how to find it before we all go crazy."

Oliver got shakily out of bed, groping for his robe with nerve-

less hands. "I s-suppose she hid it somewhere downstairs," he said. "S-she wasn't gone long."

Omerie got the story out of him in a few brief questions. He clicked his teeth in exasperation when Oliver had finished it.

"That stupid Hollia—"

"Omerie!" Kleph's plaintive voice wailed from the hall. "Please hurry, Omerie! This is too much to stand! Oh, Omerie, please!"

Oliver stood up abruptly. Then a redoubled wave of the inexplicable pain seemed to explode in his skull at the motion, and he clutched the bedpost and retied.

"Go find the thing yourself," he heard himself saying dizzily. "I can't even walk—"

Omerie's own temper was drawn wire-tight by the pressure in the room. He seized Oliver's shoulder and shook him, saying in a tight voice, "You let it in—now help us get it out, or—"

"It's a gadget out of your world, not mine!" Oliver said furiously.

And then it seemed to him there was a sudden coldness and silence in the room. Even the pain and the senseless terror paused for a moment. Omerie's pale, cold eyes fixed upon Oliver a stare so chill he could almost feel the ice in it.

"What do you know about our—world?" Omerie demanded.

Oliver did not speak a word. He did not need to; his face must have betrayed what he knew. He was beyond concealment in the stress of this nighttime terror he still could not understand.

Omerie bared his white teeth and said three perfectly unintelligible words. Then he stepped to the door and snapped, "Kleph!"

Oliver could see the two women huddled together in the hall, shaking violently with involuntary waves of that strange, synthetic terror. Klia, in a luminous green gown, was rigid with control, but Kleph made no effort whatever at repression. Her downy robe had turned soft gold tonight; she shivered in it and the tears ran down her face unchecked.

"Kleph," Omerie said in a dangerous voice, "you were euphoric again yesterday?"

Kleph darted a scared glance at Oliver and nodded guiltily.

"You talked too much." It was a complete indictment in one sentence. "You know the rules, Kleph. You will not be allowed to travel again if anyone reports this to the authorities."

Kleph's lovely creamy face creased suddenly into impenitent dimples.

"I know it was wrong. I am very sorry—but you will not stop me if Cenbe says no."

Klia flung out her arms in a gesture of helpless anger. Omerie shrugged. "In this case, as it happens, no great harm is done," he said, giving Oliver an unfathomable glance. "But it might have been serious. Next time perhaps it will be. I must have a talk with Cenbe."

"We must find the subsonic first

of all," Klia reminded them, shivering. "If Kleph is afraid to help, she can go out for awhile. I confess I am very sick of Kleph's company just now."

"We could give up the house!" Kleph cried wildly. "Let Hollia have it! How can you stand this long enough to hunt—"

"Give up the house?" Klia echoed. "You must be mad! With all our invitations out?"

"There will be no need for that," Omerie said. "We can find it if we all hunt. You feel able to help?" He looked at Oliver.

With an effort Oliver controlled his own senseless panic as the waves of it swept through the room. "Yes," he said. "But what about me? What are you going to do?"

"That should be obvious," Omerie said, his pale eyes in the dark face regarding Oliver impassively. "Keep you in the house until we go. We can certainly do no less. You understand that. And there is no reason for us to do more, as it happens. Silence is all we need to impose. It is all we promised when we signed our travel papers."

"But—" Oliver groped for the fallacy in that reasoning. It was no use. He could not think clearly. Panic surged insanely through his mind from the very air around him. "All right," he said. "Let's hunt."

It was dawn before they found the box, tucked inside the ripped seam of a sofa cushion. Omerie took it upstairs without a word. Five minutes later the pressure in

the air abruptly dropped and peace fell blissfully upon the house.

"They will try again," Omerie said to Oliver at the door of the back bedroom. "We must watch for that. As for you, I must see that you remain in the house until Friday. For your own comfort, I advise you to let me know if Hollia offers any further tricks. I confess I am not quite sure how to enforce your staying indoors. I could use methods that would make you very uncomfortable. I would prefer to accept your word on it."

Oliver hesitated. The relaxing of pressure upon his brain had left him exhausted and stupid, and he was not at all sure what to say.

Omerie went on after a moment. "It was partly our fault for not insuring that we have the house to ourselves," he said. "Living here with us, you could scarcely help suspecting. Shall we say that in return for your promise, I reimburse you in part for losing the sale price on this house?"

Oliver thought that over. It would pacify Sue a little. And it meant only two days indoors. Besides, what good would escaping do? What could he say to outsiders that would not lead him straight to a padded cell?

"All right," he said wearily. "I promise."

By Friday morning there was still no sign from Hollia. Sue telephoned at noon. Oliver knew the crackle of her voice over the wire when Kleph took the call.

Even the crackle sounded hysterical; Sue saw her bargain slipping hopelessly through her grasping little fingers.

Kleph's voice was soothing. "I am sorry," she said many times, in the intervals when the voice paused. "I am truly sorry. Believe me, you will find it does not matter. I know . . . I am sorry—"

She turned from the phone at last. "The girl says Hollia has given up," she told the others.

"Not Hollia," Klia said firmly.

Omerie shrugged. "We have very little time left. If she intends anything more, it will be tonight. We must watch for it."

"Oh, not tonight!" Kleph's voice was horrified. "Not even Hollia would do that!"

"Hollia, my dear, in her own way is quite as unscrupulous as you are," Omerie told her with a smile.

"But—would she spoil things for us just because she can't be here?"

"What do you think?" Klia demanded.

Oliver ceased to listen. There was no making sense out of their talk, but he knew that by tonight whatever the secret was must surely come into the open at last. He was willing to wait and see.

For two days excitement had been building up in the house and the three who shared it with him. Even the servants felt it and were nervous and unsure of themselves. Oliver had given up asking questions—it only embarrassed his tenants—and watched.

All the chairs in the house were

collected in the three front bedrooms. The furniture was rearranged to make room for them, and dozens of covered cups had been set out on trays. Oliver recognized Kleph's rose-quartz set among the rest. No steam rose from the thin crescent-openings, but the cups were full. Oliver lifted one and felt a heavy liquid move within it, like something half-solid, sluggishly.

Guests were obviously expected, but the regular dinner hour of nine came and went, and no one had yet arrived. Dinner was finished; the servants went home. The Sanciscoes went to their rooms to dress, amid a feeling of mounting tension.

Oliver stepped out on the porch after dinner, trying in vain to guess what it was that had wrought such a pitch of expectancy in the house. There was a quarter moon swimming in haze on the horizon, but the stars which had made every night of May this far a dazzling translucency, were very dim tonight. Clouds had begun to gather at sundown, and the undimmed weather of the whole month seemed ready to break at last.

Behind Oliver the door opened a little, and closed. He caught Kleph's fragrance before he turned, and a faint whiff of the fragrance of the euphoriac she was much too fond of drinking. She came to his side and slipped a hand into his, looking up into his face in the darkness.

"Oliver," she said very softly. "Promise me one thing. Promise

me not to leave the house tonight."

"I've already promised that," he said a little irritably.

"I know. But tonight—I have a very particular reason for wanting you indoors tonight." She leaned her head against his shoulder for a moment, and despite himself his irritation softened. He had not seen Kleph alone since that last night of her revelations: he supposed he never would be alone with her again for more than a few minutes at a time. But he knew he would not forget those two bewildering evenings. He knew too, now, that she was very weak and foolish—but she was still Kleph and he had held her in his arms, and was not likely ever to forget it.

"You might be—hurt—if you went out tonight," she was saying in a muffled voice. "I know it will not matter, in the end, but—remember you promised, Oliver."

She was gone again, and the door had closed behind her, before he could voice the futile questions in his mind.

The guests began to arrive just before midnight. From the head of the stairs Oliver saw them coming in by twos and threes, and was astonished at how many of these people from the future must have gathered here in the past weeks. He could see quite clearly now how they differed from the norm of his own period. Their physical elegance was what one noticed first—perfect grooming,

meticulous manners, meticulously controlled voices. But because they were all idle, all, in a way, sensation-hunters, there was a certain shrillness underlying their voices, especially when heard all together. Petulance and self-indulgence showed beneath the good manners. And tonight, an all-pervasive excitement.

By one o'clock everyone had gathered in the front rooms. The teacups had begun to steam, apparently of themselves, around midnight, and the house was full of the faint, thin fragrance that induced a sort of euphoria all through the rooms, breathed in with the perfume of the tea.

It made Oliver feel light and drowsy. He was determined to sit up as long as the others did, but he must have dozed off in his own room, by the window, an unopened book in his lap.

For when it happened he was not sure for a few minutes whether or not it was a dream.

The vast, incredible crash was louder than sound. He felt the whole house shake under him, felt rather than heard the timbers grind upon one another like broken bones, while he was still in the borderland of sleep. When he woke fully he was on the floor among the shattered fragments of the window.

How long or short a time he had lain there he did not know. The world was still stunned with that tremendous noise, or his ears still deaf from it, for there was no sound anywhere.

He was halfway down the hall toward the front rooms when sound began to return from outside. It was a low, indescribable rumble at first, prickled with countless tiny distant screams. Oliver's eardrums ached from the terrible impact of the vast unheard noise, but the numbness was wearing off and he heard before he saw it the first voices of the stricken city.

The door to Kleph's room resisted him for a moment. The house had settled a little from the violence of the—the explosion?—and the frame was out of line. When he got the door open he could only stand blinking stupidly into the darkness within. All the lights were out, but there was a breathless sort of whispering going on in many voices.

The chairs were drawn around the broad front windows so that everyone could see out; the air swam with the fragrance of euphoria. There was light enough here from outside for Oliver to see that a few onlookers still had their hands to their ears, but all were craning eagerly forward to see.

Through a dreamlike haze Oliver saw the city spread out with impossible distinctness below the window. He knew quite well that a row of houses across the street blocked the view—yet he was looking over the city now, and he could see it in a limitless panorama from here to the horizon. The houses between had vanished.

On the far skyline fire was already a solid mass, painting the low clouds crimson. That sul-

phurous light reflecting back from the sky upon the city made clear the rows upon rows of flattened houses with flame beginning to lick up among them, and farther out the formless rubble of what had been houses a few minutes ago and was now nothing at all.

The city had begun to be vocal. The noise of the flames rose loudest, but you could hear a rumble of human voices like the beat of surf a long way off, and the staccato noises of screaming made a sort of pattern that came and went continuously through the web of sound. Threading it in undulating waves the shrieks of sirens knit the web together into a terrible symphony that had, in its way, a strange, inhuman beauty.

Briefly through Oliver's stunned incredulity went the memory of that other symphony Kleph had played here one day, another catastrophe retold in terms of music and moving shapes.

He said hoarsely, "Kleph—"

The tableau by the window broke. Every head turned, and Oliver saw the faces of strangers staring at him, some few in embarrassment avoiding his eyes, but most seeking them out with that avid, inhuman curiosity which is common to a type in all crowds at accident scenes. But these people were here by design, audience at a vast disaster timed almost for their coming.

Kleph got up unsteadily, her velvet digner gown tripping her as she rose. She set down a cup and swayed a little as she came toward

the door, saying, "Oliver . . . Oliver—" in a sweet, uncertain voice. She was drunk, he saw, and wrought up by the catastrophe to a pitch of stimulation in which she was not very sure what she was doing.

Oliver heard himself saying in a thin voice not his own, "W-what was it, Kleph? What happened? What—" But *happened* seemed so inadequate a word for the incredible panorama below that he had to choke back hysterical laughter upon the struggling questions, and broke off entirely, trying to control the shaking that had seized his body.

Kleph made an unsteady stoop and seized a steaming cup. She came to him, swaying, holding it out—her panacea for all ills.

"Here, drink it, Oliver—we are all quite safe here, quite safe." She thrust the cup to his lips and he gulped automatically, grateful for the fumes that began their slow, coiling surcease in his brain with the first swallow.

"It was a meteor," Kleph was saying. "Quite a small meteor, really. We are perfectly safe here. This house was never touched."

Out of some cell of the unconscious Oliver heard himself saying incoherently, "Sue? Is Sue—" he could not finish.

Kleph thrust the cup at him again. "I think she may be safe—for awhile. Please, Oliver—forget about all that and drink."

"But you *knew*!" Realization of that came belatedly to his stunned

brain. "You could have given warning, or—"

"How could we change the past?" Kleph asked. "We knew—but could we stop the meteor? Or warn the city? Before we come we must give our word never to interfere—"

Their voices had risen imperceptibly to be audible above the rising volume of sound from below. The city was roaring now, with flames and cries and the crash of falling buildings. Light in the room turned lurid and pulsed upon the walls and ceiling in red light and redder dark.

Downstairs a door slammed. Someone laughed. It was high, hoarse, angry laughter. Then from the crowd in the room someone gasped and there was a chorus of dismayed cries. Oliver tried to focus upon the window and the terrible panorama beyond, and found he could not.

It took several seconds of determined blinking to prove that more than his own vision was at fault. Kleph whimpered softly and moved against him. His arms closed about her automatically, and he was grateful for the warm, solid flesh against him. This much at least he could touch and be sure of, though everything else that was happening might be a dream. Her perfume and the heady perfume of the tea rose together in his head, and for an instant, holding her in this embrace that must certainly be the last time he ever held her, he did not care that some-

thing had gone terribly wrong with the very air of the room.

It was blindness—not continuous, but a series of swift, widening ripples between which he could catch glimpses of the other faces in the room, strained and astonished in the flickering light from the city.

The ripples came faster. There was only a blink of sight between them now, and the blinks grew briefer and briefer, the intervals of darkness more broad.

From downstairs the laughter rose again up the stairwell. Oliver thought he knew the voice. He opened his mouth to speak, but a door nearby slammed open before he could find his tongue, and Omerie shouted down the stairs.

"Hollia?" he roared above the roaring of the city. "Hollia, is that you?"

She laughed again, triumphantly. "I warned you!" her hoarse, harsh voice called. "Now come out in the street with the rest of us if you want to see any more!"

"Hollia!" Omerie shouted desperately. "Stop this or—"

The laughter was derisive. "What will you do, Omerie? This time I hid it too well—come down in the street if you want to watch the rest."

There was angry silence in the house. Oliver could feel Kleph's quick, excited breathing light upon his cheek, feel the soft motions of her body in his arms. He tried consciously to make the moment last, stretch it out to infinity. Everything had happened too

swiftly to impress very clearly on his mind anything except what he could touch and hold. He held her in an embrace made consciously light, though he wanted to clasp her in a tight, despairing grip, because he was sure this was the last embrace they would ever share.

The eye-straining blinks of light and blindness went on. From far away below the roar of the burning city rolled on, threaded together by the long, looped cadences of the sirens that linked all sounds into one.

Then in the bewildering dark another voice sounded from the hall downstairs. A man's voice, very deep, very melodious, saying:

"What is this? What are you doing here? Hollia—is that you?"

Oliver felt Kleph stiffen in his arms. She caught her breath, but she said nothing in the instant while heavy feet began to mount the stairs, coming up with a solid, confident tread that shook the old house to each step.

Then Kleph thrust herself hard out of Oliver's arms. He heard her high, sweet, excited voice crying, "Cenbe! Cenbe!" and she ran to meet the newcomer through the waves of dark and light that swept the shaken house.

Oliver staggered a little and felt a chair seat catching the back of his legs. He sank into it and lifted to his lips the cup he still held. Its steam was warm and moist in his face, though he could scarcely make out the shape of the rim.

He lifted it with both hands and drank.

When he opened his eyes it was quite dark in the room. Also it was silent except for a thin, melodious humming almost below the threshold of sound. Oliver struggled with the memory of a monstrous nightmare. He put it resolutely out of his mind and sat up, feeling an unfamiliar bed creak and sway under him.

This was Kleph's room. But no—Kleph's no longer. Her shining hangings were gone from the walls, her white resilient rug, her pictures. The room looked as it had looked before she came, except for one thing.

In the far corner was a table—a block of translucent stuff—out of which light poured softly. A man

sat on a low stool before it, leaning forward, his heavy shoulders outlined against the glow. He wore earphones and he was making quick, erratic notes upon a pad on his knee, swaying a little as if to the tune of unheard music.

The curtains were drawn, but from beyond them came a distant, muffled roaring that Oliver remembered from his nightmare. He put a hand to his face, aware of a feverish warmth and a dipping of the room before his eyes. His head ached, and there was a deep malaise in every limb and nerve.

As the bed creaked, the man in the corner turned, sliding the earphones down like a collar. He had a strong, sensitive face above a dark beard, trimmed short. Oliver had never seen him before, but he



had that air Oliver knew so well by now, of remoteness which was the knowledge of time itself lying like a gulf between them.

When he spoke his deep voice was impersonally kind.

"You had too much euphoriac, Wilson," he said, aloofly sympathetic. "You slept a long while."

"How long?" Oliver's throat felt sticky when he spoke.

The man did not answer. Oliver shook his head experimentally. He said, "I thought Kleph said you don't get hangovers from—" Then another thought interrupted the first, and he said quickly, "Where is Kleph?" He looked confusedly toward the door.

"They should be in Rome by now. Watching Charlemagne's coronation at St. Peter's on Christmas Day a thousand years from here."

That was not a thought Oliver could grasp clearly. His aching brain sheered away from it; he found thinking at all was strangely difficult. Staring at the man, he traced an idea painfully to its conclusion.

"So they've gone on—but you stayed behind. Why? You . . . you're Cenbe? I heard your—symphonia, Kleph called it."

"You heard part of it. I have not finished yet. I needed—this." Cenbe inclined his head toward the curtains beyond which the subdued roaring still went on.

"You needed—the meteor?" The knowledge worked painfully through his dulled brain until it seemed to strike some area still untouched by the aching, an area still alive to

implication. "The meteor? But—"

There was a power implicit in Cenbe's raised hand that seemed to push Oliver down upon the bed again. Cenbe said patiently, "The worst of it is past now, for awhile. Forget it if you can. That was days ago. I said you were asleep for some time. I let you rest. I knew this house would be safe—from the fire at least."

"Then—something more's to come?" Oliver only mumbled his question. He was not sure he wanted an answer. He had been curious so long, and now that knowledge lay almost within reach, something about his brain seemed to refuse to listen. Perhaps this weariness, this feverish, dizzy feeling would pass as the effect of the euphoriac wore off.

Cenbe's voice ran on smoothly, soothingly, almost as if Cenbe too did not want him to think. It was easiest to lie here and listen.

"I am a composer," Cenbe was saying. "I happen to be interested in interpreting certain forms of disaster into my own terms. That is why I stayed on. The others were dilettantes. They came for the May weather and the spectacle. The aftermath—well why should they wait for that? As for myself—I suppose I am a connoisseur. I find the aftermath rather fascinating. And I need it. I need to study it at first hand, for my own purposes."

His eyes dwelt upon Oliver for an instant very keenly, like a physician's eyes, impersonal and observant. Absently he reached for his stylus and the note pad. And as

he moved, Oliver saw a familiar mark on the underside of the thick, tanned wrist.

"Kleph had that scar, too," he heard himself whisper. "And the others."

Cembe nodded. "Inoculation. It was necessary, under the circumstances. We did not want disease to spread in our own time-world."

"Disease?"

Cembe shrugged. "You would not recognize the name."

"But, if you can inoculate against disease—" Oliver thrust himself up on an aching arm. He had a half-grasp upon a thought now which he did not want to let go. Effort seemed to make the ideas come more clearly through his mounting confusion. With enormous effort he went on.

"I'm getting it now," he said. "Wait. I've been trying to work this out. You can change history? You can! I know you can. Kleph said she had to promise not to interfere. You all had to promise. Does that mean you really could change your own past—our time?"

Cembe laid down his pad again. He looked at Oliver thoughtfully, a dark, intent look under heavy brows. "Yes," he said. "Yes, the past can be changed, but not easily. And it changes the future, too, necessarily. The lines of probability are switched into new patterns—but it is extremely difficult, and it has never been allowed. The physio-temporal course tends to slide back to its norm, always. That is why it is so hard to force any alteration."

He shrugged. "A theoretical science. We do not change history, Wilson. If we changed our past, our present would be altered, too. And our time-world is entirely to our liking. There may be a few malcontents there, but they are not allowed the privilege of temporal travel."

Oliver spoke louder against the roaring from beyond the windows. "But you've got the power! You could alter history, if you wanted to—wipe out all the pain and suffering and tragedy—"

"All of that passed away long ago," Cembe said.

"Not—now! Not—this!"

Cembe looked at him enigmatically for a while. Then— "This, too," he said.

And suddenly Oliver realized from across what distances Cembe was watching him. A vast distance, as time is measured. Cembe was a composer and a genius, and necessarily strongly emphatic, but his psychic locus was very far away in time. The dying city outside, the whole world of now was not quite real to Cembe, falling short of reality because of that basic variance in time. It was merely one of the building blocks that had gone to support the edifice on which Cembe's culture stood in a misty, unknown, terrible future.

It seemed terrible to Oliver now. Even Kleph—all of them had been touched with a pettiness, the faculty that had enabled Hollia to concentrate on her malicious, small schemes to acquire a ringside seat while the

meteor thundered in toward Earth's atmosphere. They were all dilettantes, Kleph and Omerie and the others. They toured time, but only as onlookers. Were they bored—sated—with their normal existence?

Not sated enough to wish change, basically. Their own time-world was a fulfilled womb, a perfection made manifest for their needs. They dared not change the past—they could not risk flawing their own present.

Revulsion shook him. Remembering the touch of Kleph's lips, he felt a sour sickness on his tongue. Alluring she had been; he knew that too well. But the aftermath—

There was something wrong about this race from the future. He had felt it dimly at first, before Kleph's nearness had drowned caution and buffered his sensibilities. Time traveling purely as an escape mechanism seemed almost blasphemous. A race with such power—

Kleph—leaving him for the barbaric, splendid coronation at Rome a thousand years ago—*how had she seen him?* Not as a living, breathing man. He knew that, very certainly. Kleph's race were spectators.

But he read more than casual interest in Cenbe's eyes now. There was an avidity there, a bright, fascinated probing. The man had replaced his earphones—he was different from the others. He was a connoisseur. After the vintage season came the aftermath—and Cenbe.

Cenbe watched and waited, light

flickering softly in the translucent block before him, his fingers poised over the note pad. The ultimate connoisseur waited to savor the rarities that no non-gourmet could appreciate.

Those thin, distant rhythms of sound that was almost music began to be audible again above the noises of the distant fire. Listening, remembering, Oliver could very nearly catch the pattern of the symphonia as he had heard it, all intermingled with the flash of changing faces and the rank upon rank of the dying—

He lay back on the bed letting the room swirl away into the darkness behind his closed and aching lids. The ache was implicit in every cell of his body, almost a second ego taking possession and driving him out of himself, a strong, sure ego taking over as he himself let go.

Why, he wondered dully, should Kleph have lied? She had said there was no aftermath to the drink she had given him. No aftermath—and yet this painful possession was strong enough to edge him out of his own body.

Kleph had not lied. It was no aftermath to drink. He knew that—but the knowledge no longer touched his brain or his body. He lay still, giving them up to the power of the illness which was aftermath to something far stronger than the strongest drink. The illness that had no name—yet.

Cenbe's new symphonia was a crowning triumph. It had its

premiere from Antares Hall, and the applause was an ovation. History itself, of course, was the artist—opening with the meteor that forecast the great plagues of the fourteenth century and closing with the climax Cenbe had caught on the threshold of modern times. But only Cenbe could have interpreted it with such subtle power.

Critics spoke of the masterly way in which he had chosen the face of the Stuart king as a recurrent motif against the montage of emotion and sound and movement. But there were other faces, fading through the great sweep of the composition, which helped to build up to the tremendous climax. One face in particular, one moment that the audience absorbed greedily. A moment in which one man's face loomed huge in the screen, every feature clear. Cenbe had never caught an emotional crisis so effectively, the critics agreed. You could almost read the man's eyes.

After Cenbe had left, he lay motionless for a long while. He was thinking feverishly—

I've got to find some way to tell people. If I'd known in advance, maybe something could have been done. We'd have forced them to tell us how to change the probabilities. We could have evacuated the city.

If I could leave a message—

Maybe not for today's people. But later. They visit all through time. If they could be recognized and caught somewhere, sometime, and made to change destiny—

It wasn't easy to stand up. The room kept tilting. But he managed it. He found pencil and paper and through the swaying of the shadows he wrote down what he could. Enough. Enough to warn, enough to save.

He put the sheets on the table, in plain sight, and weighted them down before he stumbled back to bed through closing darkness.

The house was dynamited six days later, part of the futile attempt to halt the relentless spread of the Blue Death.

THE END.

TOPS FOR QUALITY EVERYWHERE . . . TOPS FOR QUALITY EVERYWHERE
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MEIHEM IN CE KLASRUM

by Dolton Edwards

Because we are still bearing some of the scars of our brief skirmish with H-B English, it is natural that we should be enchanted by Mr. George Bernard Shaw's current campaign for a simplified alphabet.

Obviously, as Mr. Shaw points out, English spelling is in much need of a general overhauling, and streamlining. However, our own resistance to any changes requiring a large expenditure of mental effort in the near future would cause us to view with some apprehension the possibility of some day receiving a morning paper printed in—to us—Greek.

Our own plan would achieve the same end as the legislation proposed by Mr. Shaw, but in a less shocking manner, as it consists merely of an acceleration of the normal processes by which the language is continually modernized.

As a catalytic agent, we would suggest that a National Easy Language Week be proclaimed, which the President would inaugurate, outlining some short cut to concentrate on during the week, and to be adopted during the ensuing year. All school children would be given a holiday, the lost time being the equivalent of that gained by the spelling short cut.

In 1946, for example, we would urge the elimination of the soft "c," for which we would substitute "s." Certainly, such an improvement

would be celebrated in all civic-minded circles as being sufficiently worth the trouble, and students in all cities in the land would be receptive toward any change eliminating the necessity of learning the difference between the two letters.

In 1947, since only the hard "c" would be left, it would be possible to substitute "k" for it, both letters being pronounced identically. Imagine how greatly only two years of this process would clarify the confusion in the minds of students. Already we would have eliminated an entire letter from the alphabet. Typewriters and linotypes, could all be built with one less letter, and all the manpower and materials previously devoted to making "c's" could be turned toward raising the national standard of living.

In the face of so many notable improvements, it is easy to foresee that by 1948, "National Easy Language Week" would be a pronounced success. All school children would be looking forward with considerable excitement to the holiday, and in a blaze of national publicity it would be announced that the double consonant "ph" no longer existed, and that the sound would henceforth be written "f" in all words. This would make such words as "fonograf" twenty percent shorter in print.

By 1949, public interest in a fonetik alphabet can be expected to

have increased to the point where a more radical step forward can be taken without fear of undue criticism. We would therefore urge the elimination, at that time of all unnecessary double letters, whitch, although quite harmless, have always ben a nuisance in the language and a decided deterrent to akurate speling. Try it yourself in the next leter you write, and se if both writing and reading are not facilitated.

With so mutsh progres already made, it might be possible in 1950 to delve further into the possibilities of fonetik speling. After due kon-sideration of the reseption aforded the previous steps, it should be expedient by this time to spel al dithongs fonetikaly. Most students do not realize that the long "i" and "y," as in "time" and "by," are actually the dithong "ai," as it is written in "aisle," and that the long "a" in "fate," is in reality the dithong "ei" as in "rein." Although perhaps not imediately aparent, the saving in taime and efort wil be tremendous when we leter eliminate the sailent "e," as meide possible bai this last tsheinge.

For, as is wel known, the horrible mes of "e's" appearing in our written language is kaused prinsipaly bai the present nesesity of indikeiting whether a vowel is long or short. Therefore, in 1951 we kould simply eliminate al sailent "e's," and kontinu to read and wrait merily along as though we wer in an atomik ag of edukation.

In 1951 we would urg a greit step forward. Sims bai this taim it

would have ben four years sins any-wun had used the leter "c," we would sugest that the "National Easy Language Wek" for 1951 be devoted to substitution of "c" for "Th." To be sur it would be som taim befor peopl would bekom akustomd to reading ceir newspapers and buks wic sutsh sentenses in cem as "Ceodor caught he had cre cousand cistsl crust croug ce cik of his cumb."

In ce seim maner, bai meiking each leter hav its own sound and cat sound only, we kould shorten ce language stil mor. In 1952 we would eliminate ce "y"; cen in 1953 we kould us ce leter to indikeit ce "sh" sound, certai klarifiaing words laik yugar and yar, as wel as redusing bai wun mor leter al words laik "yut," "yore," and so forc. Cink, cen, of al ce benefits to be geind bai ce distinktion whitch wil cen be meid between words laik:

ocean	now	written	ocean
machine	"	"	mayin
racial	"	"	reiyial

Al sutsh divers weis of wraiting wun sound would no longer exist, and whether wun kaim akros a "y" sound he would know exaktli what to wrait.

Kontinuing cis proses, year after year, we would eventuali hav a reali sensibl written languag. By 1975, wi ventyar tu sei, cer wud bi no mor uv ces teribli trublsom difikultis, wic no tu letters used to indikeit ce seim nois, and laikwais no tu noises riten wic ce seim leter. Even Mr. Yaw, wi beliv, wud be hapi in ce nolog cat his drims fainali keim tru.

THE END.



BRASS TACKS

Question: How does a shell know which end is up? And does a fly care?

Dear John:

Here is a seemingly innocent little question that I would like to throw into the Brass Tacks arena. I warn you, however, that this question has the nasty little habit of turning around and biting the hands of all concerned no matter which way you argue. Furthermore, I have started arguments galore at mess tables of the ack-ack and artillery outfits that lasted far into the night—and no conclusion arrived at, that everyone would accept.

The problem: Granted that an artillery shell will hit target on its nose when fired horizontally. But as the tube of the gun is raised, for example, to forty-five, the long axis of the shell is thrusting along a line of force forty-five degrees above the target and the centrifugal force of the spinning shell tends to keep it

in this angle of flight on gyroscope principle

QUESTIONS:

1. Does the nose come down? Why? Gravity acts equally on all parts of shell. Air pressure has tendency to push nose up on airfoil principle. Centrifugal force of a one hundred or thousand pound shell is considerable, to keep it in original direction. Don't use the pet word "trajectory" because that applies to the entire shell's flight—not axis.

2. If shell were fired almost straight up—say: eighty-five degrees—what happens? Does it go up and turn around to come down on its nose—or come down on its tail?

3. As the tube of the gun is raised from horizontal—is there a chart or factor that allows for departure of axis of shell from horizontal flight (ground distance covered)?

4. What is angle when shell no

longer hits on nose? Does it hit and bounce to explode fuse?

Honestly, John, dozens of artillery men that I talked with over here proceeded to drag out all the charts and stuff they could find—but nary a good answer. There is one half-hearted weak answer that fits some of the problem, but I won't say what it is. I think you better page Willy Ley.

This question started in my mind one morning when a dud shell smacked into a forty-five degree angle mud-bank behind the latrine near Saar-Union. It hit flat—at a forty-five degree angle, and didn't explode. G-2s examined it later and said nothing was wrong with the fuse and that was when I asked would it have exploded if it had hit on level ground. They said, "Yes."

I immediately remembered your mention of the Radio Manual that instructs a student how to build hundreds of types of receivers—but never mentions that a transmitter is necessary to make the blame thing function. If you are too close or too familiar with a subject, sometimes you can't see the forest for the you-know-what!

One more silly little question to torture your buzz-boy, hot-rock pilot friend with: "When a fly lands on the ceiling upside down—does he do a half-loop to land—or a half-roll? If you think there is a simple answer to that, just think about it a bit—and then start standing on a table for personal observation like I did."
—Jerry Shelton.

Heck—we better use Bell Labs visible speech in type form, as J. J. Coupling suggested!

Dear Mr. Campbell:

With all respect to Mr. de Camp's suggestion that you invest in a set of international phonetic type, I would like to suggest that the advisability project is debatable. It is just another conventional alphabet that must be learned by ear. So why not use any of the better known phonetic alphabets?

Furthermore, Mr. de Camp disapproves his own thesis. He succeeds in phoneticizing the names of your authors, and then points out that they will be mispronounced anyway.
—Fred Nash.

I must have been talking about Enrico Fermi who, by 1938, had split the uranium atom but didn't then know it.

Dear Mr. Campbell:

I was lucky enough to pick up several old copies of *Astounding* in a secondhand book shop the other day and as I was looking them over I came across your editorial in the June 1938 issue. I would like to quote from several of the paragraphs in it to show you that prophecy is not segregated in the fiction section of your magazine.

"Spaceships and atomic power to come: I think they'll come pretty much together—and both pretty quickly. Not because the spaceship must wait for atomic power,

but because it has waited. No one man is going to discover the secret of atomic power. A century from now men will almost certainly say that one of the present great in the field was the discoverer of the secret of atomic power. We say today that Faraday discovered the principle of the electric dynamo and motor, though he never would recognize the modern turboalternator.

"But you can be fairly certain of this: *the discoverer of the secret of atomic power is alive on Earth today.* His papers and researches are appearing regularly; his name is known. But the exact handling of the principles he's discovered—not even he knows now.

"We don't know which is his name. But we know him. *He's here today.*"

How do you like that for a hunk of absolutely true prophesying? You know, of course, who the man you spoke of is, Albert Einstein (Dr. that is). The principle he discovered: $E = MC^2$. This was the fundamental formula that made the atomic bomb and atomic energy possible, as any observant reader of the "Smyth Report" knows.

I certainly hope that the other part of your forecast comes true, that of spaceships and atomic power together, but I hope it keeps itself off a few years because I'd like to be able to take part in the first trip.

That would make a beautiful topic for a thesis for a Ph.D. Something like "The Flora and Fauna of Mars."

In the April issue of "Astounding" I especially enjoyed your articles. The article "Spaceship Takeoff" and the accompanying articles were especially interesting. I liked that on the Betatron especially as it cleared up several points for me.

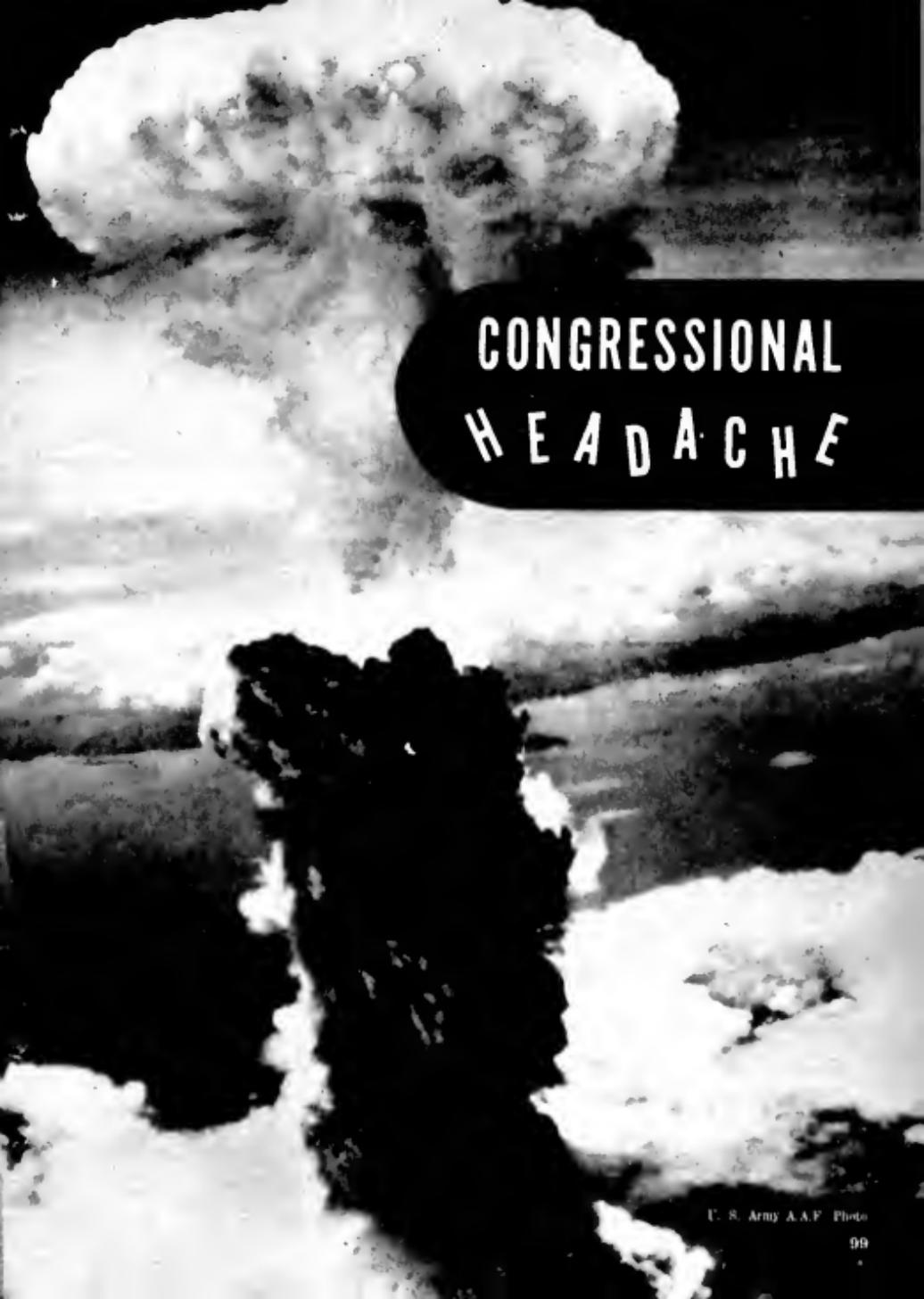
"Pattern For Conquest" is shaping up into quite an enjoyable and entertaining piece. I am eagerly awaiting the concluding piece. I like these detailed accounts of plant-scaring destruction reaching from pole to pole. It really fires my imagination and the way Smith handles it is admirable.

Say, where do these old-timers get off saying that Astounding isn't nearly as good as it used to be? I have been following Astounding for the last two years but I have gotten hold of some of the more ancient issues and I think that for the most part the present day writing is much less "hack" than in the "good old days."

Here's to more—it couldn't be better—prophesying on the part of our editor and let's have the writers try and catch up—J. Kenneth Moore, 54 Wadsworth Terrace, New York 33, New York.

THE END.



A black and white photograph of a nuclear explosion. A large, billowing mushroom cloud rises from the ground, with a dark, dense column of smoke and debris rising from the base. The background shows a landscape with hills and fields.

**CONGRESSIONAL
HEADACHE**

U. S. Army AAF Photo

CONGRESS IS TOO BUSY

by W. B. deGraeff

It is up to the United States to determine the future of atomic energy—and atomic bombs. What is done now, will start the pattern of the future. And what is done—Congress must do. Unfortunately, Congress is bewildered—and too busy.

Have you ever heard of a man saying "Sorry, too busy!" when Death knocked at the door—and getting away with it?

Yet that is just about what they are trying to do down in Washington today regarding atomic power control. Most congressmen are too busy to worry about it. They have too much to do. Too many urgent calls for political preferment, tax favors, government jobs, price adjustments, materials allocations, and so on, come pouring in on them from their states. Too many essential meetings of committees on small business, audit and control, Indian affairs, pensions, interoceanic canals, claims, un-American activities, rules, disposition of executive papers, and dozens

more, are always on their engagement pads to permit most senators and representatives the time to sit down with their consciences and what intelligence God gave them and ask: "Which is more important? National vainglory with an atomic 'Big Stick'?—or the sudden atomic death for us all which will be the inevitable consequence of our attempting to maintain an Anglo-American monopoly of uranium bombs?"

It is much too easy for them to choose national vainglory, and not only because it saves time. Another factor leading to that choice is the uncertainty and tinidity which afflicts our painfully provincial elected representatives now that they have suddenly been thrust into

the limelight of the international stage by an overwhelming and ill-comprehended power.

Still another factor is fear. The nuclear physicists who have been haunting congressmen during the past few months still have something to learn about fear—even though they themselves have lived with fear for years. They have to learn that an amateur, unscientific fear of the atom, the sort they have been trying to instill into Congress, promotes unreason rather than reason. It strengthens prejudices and feeds hatreds, rather than weakening

them. It piles fuel on the fires of blind and savage nationalism. Those members of Congress who have taken time out to think about the atom are afraid of it in this fashion.

However, most of them are not afraid of it. They are afraid of Russia, the British Empire, foreign competition, labor, the farm bloc, the veterans' groups, and a hundred and one other special interest lobbies in Washington. They are afraid of elections, of defeats at the polls, of special state interests, of unpopularity, of internationalism

Congresswoman Edith Rogers of Massachusetts receives a delegation of home folks. Greeting visiting home-towners is a time-consuming duty of representatives and senators alike. It's also vital to the nation; the home-towners, not the congressmen, are the rulers of this nation. A congressman who refuses to see constituents may have forgotten he governs for the people, not for himself.

Wide World Photos, Inc.





Press Association, Inc.

Rep. Gerald Landis of Indiana looks over some mail. Answering it, even reading through it, takes time. But in our nation, the people rule; it is essential that the time-consuming job of studying the mail be carried through.

and co-operation among the nations of the world.

But they do not give themselves time to be afraid of the atom. They are proud of it—we have it! They are wary of it—maybe it'll go off! And they are worried about it—maybe someone else will get it! But they are not frightened of it the right way.

They are too busy to be constructively frightened. Most of them put in a twelve- or sixteen-hour day, six days a week, merely in order to keep up with their mail, their appointments, their political and social duties, their committee assignments, and their multifarious obligations to their constituents.

Read? They read the newspapers and parts of the Congressional Record; bills and committee reports; a news magazine or picture magazine or so; detective and historical novels to relax them. How can they find time to read the Smyth Report, much less derive from that complex and difficult document the lessons it contains?

And if they did, what could they do about it? How could they decide the right way? What is the right way?

Many scientists, political liberals, and idealistic students of world affairs blithely claim that mere "international control" of atomic research and atomic bombs is the



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The legislative business of Congress is enormously time-consuming. Most of the work, done by committees, is not a drain on the time of all congressmen—but every congressman works on some committees. Here the Senate and House consider the vital draft program bill.

way. This international control will be achieved, they hope, despite the fact that the United States and Great Britain, sole possessors of the bomb, plan to continue holding it as a Sword of Damocles over the heads of the rest of the nations until the international control organization is set up. The proposal for international ownership of all atomic plants and products which was put forward by Dean Acheson of the State Department in March still provides for Anglo-American atomic hegemony while the organization is being established; and, in view of the balance of votes in the U.N., undoubtedly expect to continue that hegemony after the

“world control” is working.

On the other side stand the military, and their supporters in and out of Congress, ceaselessly baying in the ears of the people that international control won't work, that civilian control will mean “leaks” and will not work either domestically or internationally, that even with international control some other nation might break bond and make bombs secretly—we *never* would—and that “national defense” demands unilateral and monopolistic control of nuclear fission by and under the military in America.

This, of course, ignores the fact that, as Harold Urey has put it, *already* in America “atomic bombs

are being manufactured in an amount unknown to us" and that "even Congress does not know the extent of this power, which represents a threat to other countries" and has an important effect on the relations of this country to other countries. In other words, we Americans are right now making bombs secretly. It is these military-minded men, in and out of the Army, who are edging us along the abyss within which fumes and bubbles the energy to destroy civilization.

Far in advance of the militarists and the international control boys are a few of the most intelligent scientists and political realists, including such men as Dr. Urey, Dr.

Leo Szilard, and Senator Claude Pepper, who struggle to win Congress and the people to their view that complete and free dissemination of all atomic information to every nation, and the open destruction of our whole stockpile of atomic bombs and the plants which are making them, is an absolutely essential preliminary to international inspection and management of atomic developments. Only by such drastic measures, they say, can international confidence in our own motives be restored to a point where other nations will be willing to accept any United Nations controls.

When the average congressman has time to think about the atom, he thinks about it. Perhaps he ar-

There are so many things that must be decided immediately—at once—that adequate atomic legislation, which seems less immediate, gets put off. The Army and Navy are being decreased; Congress has to do something about that now—or hear from home!

Wide World Photos, Inc.



rives at a decision. But even if he takes the time and makes up his mind, it is still practically impossible for any single thoughtful senator or representative to wield much influence in the halls of Congress—particularly if he is progressive. Because of the peculiar organization of the House and the Senate, independent members are practically hogtied before they start.

As everyone knows, any congressman can introduce a bill. But such bills are practically always referred to some committee, and rarely if ever are acted on without committee recommendation. That is the system.

What does this mean as far as atomic energy legislation is con-

cerned? During the war, the extremely conservative Military Affairs and Appropriations Committees of the two houses had limited but important information about atomic developments. Perhaps they did not hear the word "atomic," but at least they knew that they were being urged to appropriate huge sums of money for some momentous and incredible new secret weapon.

All of this hush-hush pressure came from the Army, which was in a dictatorial position while the fighting was going on. As a result, the military had a firm grip on the whole mechanism of Congress when news of the atom broke. The May-Johnson Bill, sponsored by Representative Andrew May in the House

The spring and early summer of 1946 were strike-and-strife ridden; something has to be done about adequate labor legislation. Obviously, if strikes produce violence, something is wrong with the set-up—it must be changed, and now.

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The Senate and House in joint session hear President Truman's request for labor legislation. But only under such conditions as this relatively rare and dramatic scene is the House chamber so well filled. Usually the representatives are so busy that relatively few attend the ordinary sessions.

and by Senator Ed Johnson in the Senate, and written by the War Department, had the inside track. This is the bill which has been called "similar in intent and effect to the transfer of power from the German Reichstag to Hitler" by Dr. Urey.

That bill still has the inside track, to a degree—or at least the kind of thinking which dominated the writing of it does. Many of the congressmen who back that bill are blindly convinced that the atom bomb is like a new type of battleship. It is something we have to keep to ourselves so other nations

will not get it. These are the men who will not listen when the scientists tell them that any nation with only average resources can produce atomic bombs inside of five years, and the deadly atomic poisons in one or two—maybe less.

These are the men who have found time to think on the problem of atomic energy, and because of their fears, their vainglory, and their ignorance, they have thought wrong.

Then there is the McMahon Committee. After the scientists who had worked on the Manhattan Project got worried, and put on a magnificent campaign in and out of

Meanwhile, at White Sands, the obsolete weapons of the last war are being studied, and readied for the next. A super-V-2, carrying a super-atomic bomb, perhaps 20,000 times as powerful as the Hiroshima bomb, can be made on the basis of facts now known. The Hiroshima bomb, you remember, was 20,000 times as potent as a one-ton TNT blockbuster.

Press Association, Inc.

Congress against the May-Johnson bill, an angry battle broke out in the Senate to decide who should hold hearings on a civilian-control bill. The man who proposed the Committee and the bill was Senator McMahon of Connecticut, a mild progressive. But as the inexorable machinery of the Senate's rules of seniority worked, assisted by the solidly reactionary Rules Committee which was responsible, with Senate President Kenneth McKellar, for the appointment of the members of McMahon's group, the McMahon Committee turned out to be as nationalist-minded a collection of senators as could possibly be gathered together in one place.

The committee was organized. Slowly, and with elephantine deliberation, its hearings got under way. The military, worried by the rumpus their own bill had raised, tried to amend the McMahon bill for civilian control to give them undercover command of the operation. As this is written, the battle is still being fought—with molasses-like slowness, with dreamy deliberation—while all the other members of Congress busily spin their own



in small, self-contained orbits.

And no one can really blame them. For what could they do? They cannot hurry the committee's proceedings—that would be definitely bad form. One never urges these small legislative debating societies to get a move on: that would be a suppression of free speech and a derogation of congressional prerogatives.

So the other congressmen go busily along, not even taking much time out to be afraid. No one, as far as the record shows, has yet put in a resolution authorizing the destruction of our atomic bomb plants and our atomic bombs, and the free giving of all our atomic information to the United Nations or to the nations of the world individually, as a prerequisite of international control.

If things go on this way, if Congress remains too busy to worry about Death's knocking at the door, Death will enter unasked, sooner or later, and it will not be only congressmen who will die.

Our only hope is that time, common sense, second thoughts, continuous lectures by the scientists, and a painful growth into a realization of our position as just one power in a world in which every power that has atomic bombs is equal, will cause Congress—and the people who elect Congress—to change their minds, and to enter the fraternity of nations with open, extended hands, rather than with

fists clenched over the atom. That is something we can work for.

Let us work for a gradual growth of strength and understanding within the United Nations Organization, for a gradual increase in mutual respect and fair dealing among the big Five and the Little Forty-and-five. Let us work for a deliberate growth of intellectual awareness on the part of our elected representatives that this is a new world, a world in which the choice is no longer "yes" or "no" to international planning and co-operation, it is now "international co-operation or death."

And if, as time passes, these things gradually develop within the minds of our congressmen—when ever they have a few spare moments to use their minds on the problem at all—then perhaps we may arrive at an unstable but nevertheless workable *modus vivendi* which will permit their generation to live its life out un-atomized and unharmed. Always provided that the bomb is not used before that equilibrium is attained.

The next generation, more accustomed than we to the knowledge that the power of the atom is greater than that of any one nation or condominium of nations, may perhaps find the final solution which it seems probable will escape us who are too afraid, too vain, and too busy to discover it.

This we can hope for—as long as we are alive to hope.

THE END.

SECOND APPROXIMATION

by R. S. Richardson

A more detailed study of the problems of three-dimensional navigation, as applied to the plotting of a practical rocket course from Earth to Mars.

Harvard College Observatory

Announcement Card 108

TRANS-NEPTUNIAN PLANET.

The following telegram has been received from the Lowell Observatory:

Systematic search begun years ago supplementing Lowell's investigations for trans-Neptunian planet has revealed object which for seven weeks has in rate of motion and path consistently conformed to trans-Neptunian body at approximate distance assigned. Fifteenth magnitude Position March 12, 3^h G.M.T., was seven seconds of time west from Delta Geminorum, agreeing with Lowell's predicted longitude.

Such was the historic announcement that heralded the discovery of Pluto and electrified the world one morning in the spring of 1930. For years astronomers had been ruminating over the possibility of a planet beyond Neptune, a few had predicted where such a planet might be found, and a very few had even taken the trouble to look

for it. But for the most part, they went blithely ahead with their researches on the stars and nebulae, content to leave the solar system as it was.

When Planet X was actually found, however, a big change-over occurred. Telescopes immediately began to converge on the constellation of the Heavenly Twins, with the result that observations began to pour into the Harvard College Observatory, clearing house for astronomical discovery. Within a month after Announcement Card 108 was issued several orbits of Pluto were available so that its course could be predicted with tolerable accuracy in the future—and what was equally important—in the past as well.

Naturally these first orbits were not too reliable. How could they be otherwise when we only had observations for 28 days on a body we now know requires 90,739 days to complete a circuit around the

Sun? One astronomer had Pluto moving in an orbit that resembled Halley's comet. Another had it moving in a circle. Still another was hyperbolic. But crude as these computations were, nevertheless they served a useful purpose. For they were *first approximations* to the true orbit. Later when pre-discovery photographs of Pluto were unearthed which extended its path back to 1914, these orbits could be quickly converted into much more reliable second approximations.

Articles on interplanetary travel almost invariably labor under the handicap of two highly artificial assumptions. The first is that the Earth has no atmosphere. The second is that the Earth has no mass. The problem then becomes extremely simple. In only a few minutes it is possible to calculate an orbit to Mars, the initial velocity needed, and the number of days required to make the trip. In 1943 an article of mine appeared in *Astounding* outlining some of these orbits.*

It seems incredible that barely two years ago none of us had ever heard of robot bombs and rockets were something you shot off on Fourth of July to amuse the kids. Had anyone maintained that the United States could be bombarded by giant stratosphere projectiles from emplacements thousands of miles distant his claims would have provoked only ridicule. Now we are in a frame of mind to believe

* *Space Fix, Astounding Science-Fiction, March 1943.*

anything. We have come to realize that technological difficulties can always be overcome when men are determined and money is unlimited.

With these transcendental developments in rocketry going on can we remain content with our old abstract notions on space travel? The answer is an emphatic NO! They were suitable for 1943 A.D. but now they are definitely dated. The time is ripe for the second-approximation.

In this article we propose to discuss the motion of a body minute by minute from the time it is launched into space until more than a million miles from Earth *under the influence of terrestrial gravitation*. That is, we shall remove one of the assumptions under which such discussions have been carried on in the past. It is easy to understand why the mass of Earth is tacitly ignored. For as soon as we cease to regard Earth as a mere geometrical point we at once have a three-body problem on our hands. Now the two-body problem was completely solved by Newton. But except in certain special cases such as the motion of the Trojan asteroids and Jupiter the three-body problem defies our present mathematical methods. It is true that Sundman of Helsingfors has derived a theoretical solution but it is useless for purposes of practical computation.

In any particular case, however, the movements of three or a dozen bodies can be determined by application of a process called

mechanical quadrature. The process is a long and tedious one involving a lot of arithmetic but the point is—it can be done.

The obstacle of the Earth's atmosphere still remains as formidable as ever. No attempt will be made to attack it here so that the reader must bear in mind that all remarks apply strictly to an hypothetical airless Earth.

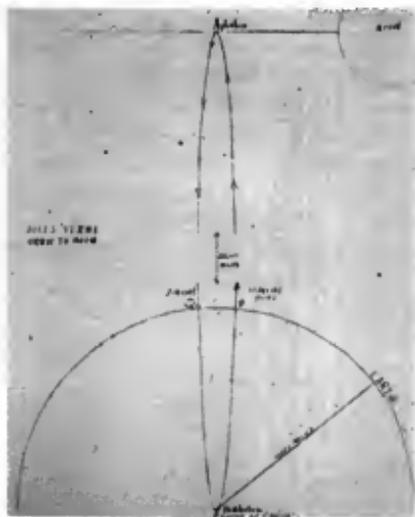
Let us review briefly what might be termed the classical method of interplanetary travel in which the mass of the Earth is neglected, as it is necessary for a proper understanding of what follows.

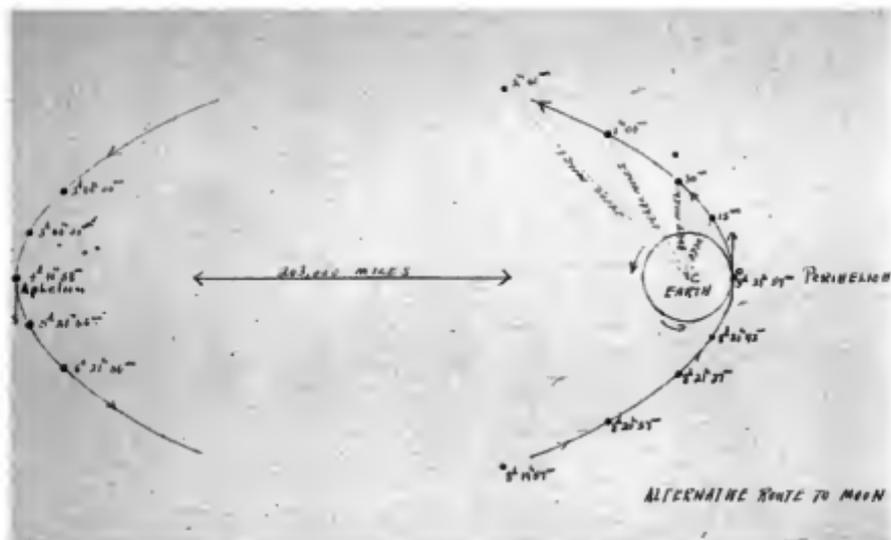
The factor guiding and controlling the entire course of such investigations is the amount of energy needed to launch the ship upon its path. Once the ship is started and moving in the right direction at the right speed it will proceed to describe an orbit around

the Sun wholly beyond our power to control. There are innumerable paths we might force the ship to follow all of which would lead it to Mars but some are much more economical than others. And so before granting any contracts on the project it is advisable to take a good hard look at the bids submitted.

To send a ship from Earth to Mars means we must do work against the force of the Sun's attraction. The farther we send it outward from the Sun the more work we must do and the more velocity we will need to give it in the beginning. It is decidedly to our advantage, therefore, to make contact at the point on the orbit of Mars that is nearest the Sun—the so-called perihelion point. The orbit of Mars is so eccentric that the planet's distance from the Sun varies from 128 million miles at perihelion to 155 million miles at the most distant or aphelion point. Hence there is considerable advantage in aiming for perihelion. (The eccentricity of Earth's orbit is so small that we may regard it as a perfect circle with the Sun at the center.)

It is also to our advantage to make the *perihelion* point of the orbit of Mars the *aphelion* point of the orbit of the ship. For aphelion marks the extreme limit of range, the farthest point the ship is able to attain from the Sun before turning backward. We do this by choosing the time of departure at the moment when Earth is on the side of the Sun opposite or





An alternative to Jules Verne's route to the Moon. The projectile is fired horizontally from the surface in the same direction the Earth is rotating. In this case the projectile would return to the Earth in 9 days 11 hours and should be able to pass the perihelion point P, at the Earth's surface, without collision.

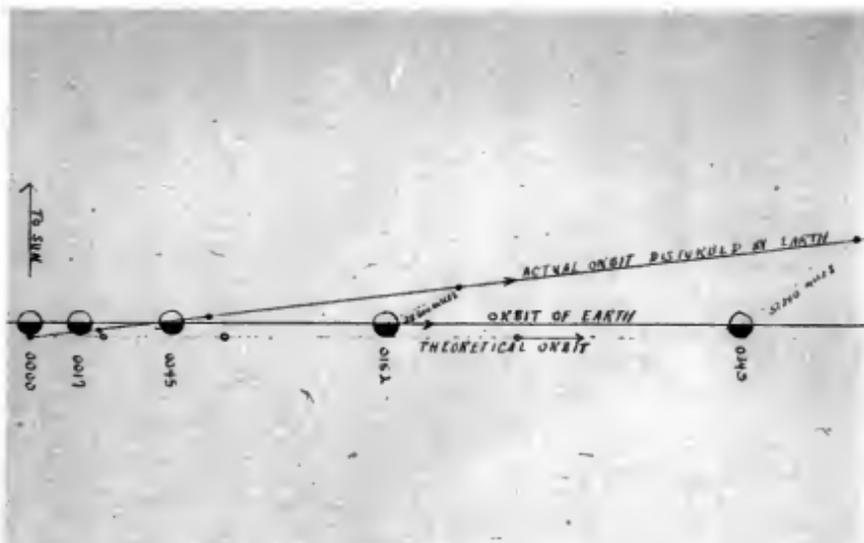
180° from the perihelion of Mars.

It should be noted that, although this is the most economical path to the orbit of Mars we have no guarantee whatever that the Red Planet will be on hand to meet us at the boat. In fact, only about once every seventeen years would Earth and Mars be so situated that we could aim for perihelion with any prospect of making connection. Most of the time we would be compelled to operate under circumstances much less favorable than this theoretical ideal.

Planning the orbit as we have indicated completely fixes its size and shape, as we naturally assume that Earth, Mars, and ship all move in the same plane. In order to put

the ship into such an orbit we will have to give it an initial velocity of 19.58 miles per second (mps).

Now the Earth swings around the Sun at the nearly steady rate of 18.50 mps. If then we could send the ship off into space in the same direction the Earth is moving, it would already be endowed with 18.50 mps and need only 1.08 mps more to make up the necessary amount. Moreover, by firing from the equator at midnight we can pick up .03 mps from the Earth's rotation, thus reducing the speed of the ship relative to the Earth to an absolute minimum of 0.78 mps. Thus we can get ninety-six percent of the speed required by utilizing the motions of the Earth which are



A greatly magnified section of the take-off showing actual path resulting from attraction of Earth contrasted with theoretical undisturbed orbit. When the mass of the Earth is neglected, the body leaves the surface at 6.95 mps and forges rapidly ahead along a nearly parallel course. Actually Earth causes body to deviate inward or toward the Sun. Arrows at 0152 (1 hour 52 minutes after start) show distance projectile, Earth, and undisturbed body would move in 15 minutes.

free.

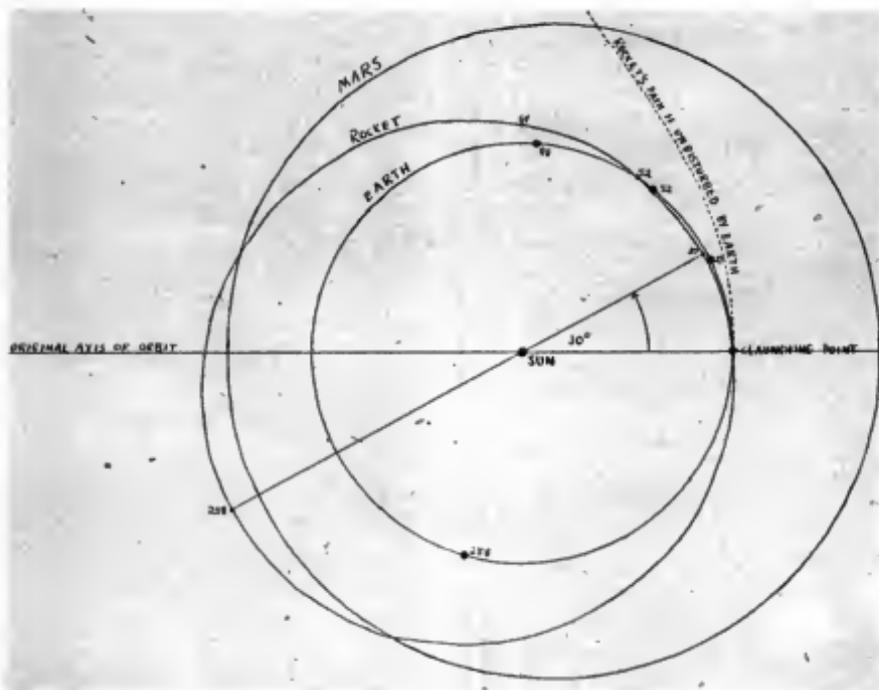
The diagram shows the relative positions of Earth, Mars, and ship at intervals of forty days. At the start of the journey, the ship as seen from the Sun is moving more rapidly than Mars so that after one hundred twenty days it overtakes and passes the planet. But as they approach the rendezvous position, Mars begins to gain speed since it is nearing the perihelion of its orbit. The projectile, on the other hand, is slowing down since it is nearing the aphelion point of its orbit. The outcome is that after two hundred thirty-seven days

Mars overtakes the ship. Inhabitants of the morning side of the planet would see it come plunging out of the sky like a giant meteorite.

The principle is applicable to any other body in the solar system—the Moon, for example. The most direct method of reaching the Moon might seem to be the one Jules Verne described in 1865, which consisted essentially of taking a straight pot shot at our satellite, much in the same manner that a hunter bags a rabbit.

Readers will recall that the

The rocket is launched at the point indicated on the Earth's orbit, in the direction the Earth is revolving around the Sun from the equator at midnight. The velocity of the rocket with respect to the Earth is 6.95 miles per second. It acquires 18.50 mps from the Earth's orbital motion plus 0.30 mps from its axial rotation. Thus its velocity with respect to the Sun is 25.75 miles per second. If the rocket were not disturbed by the Earth and moved under the attraction of the Sun alone, it would follow a huge orbit indicated by the dotted line which would carry it out nearly to Uranus. But Earth radically changes motion, at first pulling the rocket inside its orbit. At the end of about 27 days the rocket is 2,500,000 miles inside Earth's orbit; then recrosses Earth's orbit moving outward at 52 days. Relative positions of Earth and rocket are shown at 88 days, and when rocket is halfway around Sun at 258 days. Since no particular date of launching has been specified, the position with respect to orbit of Mars is arbitrary. I have drawn Mars' orbit so that rocket crosses it in two places. Action of Earth also rotates rocket's orbit counter-clockwise in direction of Earth's motion by 30 degrees.



president of the Gun Club sent a letter to the director of the Cambridge Observatory requesting information concerning the best way of reaching the Moon. (It seems rather odd that Verne did not employ the United States Naval Observatory for this purpose, as it would certainly have been the logical place to send such a letter. Perhaps it was because the Naval Observatory was a pretty small affair back in those days.) The director advised them to aim from some point where the Moon would pass through the zenith at a time when the Moon would be nearest the Earth. By a fortunate coincidence it so happened that on December 4th of the following year the Moon would be nearest the Earth when at its extreme distance north of $28\frac{1}{2}^{\circ}$. If a cannon pointing vertically upward could be sunk somewhere along this parallel of latitude, it would only be necessary to give a projectile the "velocity from infinity" at the proper time in order to attain the Moon.

For the benefit of readers not familiar with this term, it should be explained that the velocity from infinity is the minimum velocity a particle on the Earth's surface must have in order to leave the Earth and never fall back again. It amounts to 6.94 mps. Or we may look at it from another point of view. Suppose the Earth and a cannon ball are the sole objects in the universe. At the beginning they are at rest with respect to each other and at an infinite—very great

—distance apart. The two are accelerated toward each other, the cannon ball much more than Earth. The cannon ball approaches Earth at an ever-increasing rate which at the moment of impact becomes 6.94 mps, the "velocity from infinity."

Verne was so confident that his projectile would hit the Moon that in order to make it miss connection he brought in an encounter with a secondary satellite of the Earth. As a result, the projectile was deflected just enough so that it missed the Moon and deposited the travelers safely back on Earth in the Gulf of Mexico, if memory serves me correctly.

Verne took great pains to make his marvelous voyages as technically accurate as possible. To help him with the astronomical calculations he secured the services of his cousin, Professor Garcet, a teacher of mathematics in Paris. So far as I am aware, to this day "*De la Terre à la Lune*" is the only book of its kind in which the author has attempted to meet the difficulties confronting him in a convincing and realistic manner.

Would you like to see the exact path that Verne's famous projectile would have followed?

Without apparently realizing the fact, Verne gave all the data necessary to calculate the orbit of the projectile, eighty years after it was created in his imagination. In our interpretation we shall neglect the Sun and consider the projectile as moving under the influence of

Earth alone, thus keeping it a simple two-body problem.

The two-body problem reduced to its bare fundamentals is this:

Given the masses of two spheres and their positions and motions at any instant. Given also the law of gravitation. Required the motions of the bodies forever afterwards.

Well, we know the masses of the two spheres. The mass of Earth we shall call unity. The mass of the projectile is so insignificant we can disregard it.

What else do we know?

We know the distance of the projectile from the center of attraction at time zero. The projectile was launched from the surface of Earth which puts it a distance of one radius or four thousand miles.

We know also that the projectile was launched toward the zenith with a velocity that amounted to 6.94 mps after the resistance of the atmosphere was taken into account. This fact gives us more information than might at first be realized. For it gives us a particular velocity of the projectile—the velocity along the line joining it to the center of the attraction or *radial velocity*. But this was not the whole velocity. For Earth's rotation imparted a velocity of 0.3 mps perpendicular to the radial velocity. Therefore, the total velocity compounded from these two was 6.95 mps.

The orbit resulting from these conditions is certainly a wicked looking curve. Part of it lies inside Earth itself! The diagram

will make the situation clear.

The projectile starts from the mouth of cannon at P moving practically straight out from the surface in the direction of the arrow. Only a relatively small portion of the path can be shown in the illustration. If the entire 239,000 miles were drawn out to scale, the orbit would look like a straight line. Actually it is an extremely narrow ellipse. After five days the projectile touches the Moon's orbit at the point marked A. This is the aphelion point of the projectile's orbit where theoretically it would hit the Moon. We have deviated a trifle from Verne's original plan here which was to send the projectile only as far as the distance where the Earth's and Moon's attraction are equal, but the difference is inconsequential.

Suppose the Moon is not at A so that the projectile turns Earthward. It is now heading for perihelion which is the point nearest the center of attraction at C. But there is a slight obstacle in the way owing to the fact that perihelion lies only three miles from the center of Earth itself. The projectile has no choice in the matter, however, being compelled to keep going regardless of consequences. And so the ill-fated missile, true to Newton's law of gravitation to the bitter end, smashes into Earth at Q in a vain endeavor to complete the revolution which it started but a few short days ago at P.

Far be it from me to criticize Jules Verne, the old master of

science-fiction, but to my way of thinking he picked out a pretty drastic method of reaching the Moon. There is an alternative route which is not quite so strenuous.

Let us try the same system we used in our trip to Mars. Suppose that we aim—not for the zenith—but for the east point on the horizon 90° distant. The projectile now has no radial velocity whatever at the start; its motion is all in the direction of the Earth's rotation. There are two points and two points only on an elliptic orbit where the motion is all perpendicular to the line joining the body to the center of attraction—the perihelion and aphelion points. Obviously the projectile is not at aphelion. Therefore it is at perihelion which is four thousand miles from the center of Earth instead of three miles as in the Jules Verne case.

The projectile follows an ellipse which is nearly but not quite so slim as the other. The aphelion point is again on the orbit of the Moon which is attained after four days eleven hours. The projectile turns backward toward perihelion which it now should be able to pass providing all the launching gear at P has been removed in the meantime.

The trouble with both methods, of course, is that one of the chief factors has been purposely omitted, the attraction of the Sun. Even at 92,900,000 miles the attraction of the Sun on the Moon is more

than double the attraction of Earth. If Earth were suddenly fixed in space, the Sun would proceed to take the Moon right away from us. But since both the Earth and Moon are free to move, the moment one starts changing its motion toward the Sun, the other starts changing along with it at nearly the same rate. Thus the two revolve around their common center of gravity at the same time keeping pace together around the Sun.

A few paragraphs ago when we launched our ship toward the east with the velocity from infinity of 6.94 mps, we failed to include the effect of the Earth's rotation of 0.3 mps, as well as the little item of 18.50 mps due to the Earth's orbital revolution. Thus the ship's total velocity with respect to the Sun was 25.74 mps.

Now 25.74 mps is plenty of velocity for a body to have at a distance of one astronomical unit. The velocity necessary to take a body clear out of the solar system at 1 A.U. is 26.15 mps, only 0.41 mps greater. Consequently we should expect that a body started moving along the Earth's orbit at 25.74 mps would recede to a considerable distance from the Sun before turning backward. In this respect we are not mistaken. Calculations show that IF the attraction of the Earth is neglected the body would describe a huge orbit reaching out almost as far as Uranus.

But for the first time in this article we are NOT going to neglect

the attraction of either the Sun or Earth. Instead we are going to allow them to go ahead and do their worst.

We're off! Rushing into space at 25.74 miles per second—1,544 miles per minute—92,640 miles per hour.

Quick! We must never let the ship get out of control. Got to keep track of it every step of the way. Check its motion in steps so small that we can always predict the next one with absolute confidence. Herein lies the whole trick of the method, which consists essentially in deriving the path of the ship in the form of a smooth running series of steps out into space. There can be no breaks, halts, or sideslips in the series.

The process might be compared to that of tracking a criminal from the scene of the crime by means of his footprints. Imagine that at first he fled at top speed, then slowed down to a jog, and finally walked at a normal rate. At the start of the trail his footprints would be far apart and we would have to watch carefully not to miss one. But as his speed slackens we could skip a few occasionally without fear of going astray.

In order to follow the ship at all in a three-body problem of this kind we are forced to assume that the attraction of the Sun and Earth upon it remain fixed during some chosen interval of time or step. In reality their attraction is changing momentarily, but by making the interval small enough we will not get into serious error. We

calculate the attraction of the Sun and Earth upon the ship during this interval, which enables us to determine the position of the ship at the end of the interval. We have now advanced by one step. Then the whole process is repeated, the effect of the Earth and Sun being calculated again for the new position. At first the Earth's attraction is so powerful that we must proceed with the utmost caution in extremely small steps. But it dwindles rapidly as we recede into space until in a few days we are traveling under the comparatively uniform force field of the Sun, allowing us to forge ahead in longer strides.

When computing the disturbing effect of Jupiter on a comet, for example, an interval of forty days might not be too long and seldom would it be necessary to drop to an interval of less than ten days. But during the first critical minutes after the ship leaves Earth it was necessary to use steps of $1/512$ days or two minutes forty-nine seconds in order to make the series run smoothly. After about a dozen such steps the interval was doubled, and eventually it was safe to lengthen them to twelve hours per step.

At the take-off the Earth disturbs the ship so strongly that its orbit is being altered continually. That is, at each moment the ship has a different instantaneous orbit which it would follow if the Earth were suddenly annihilated. Astronomically speaking, the ship is said at any instant to be following a

particular osculating orbit. (The first time I saw this term in print I felt sure there must be a mistake. What the author undoubtedly meant was "oscillating" orbit. Osculation referred to the act of kissing and there was little romance in "Short Methods of Orbit Determination," Volume VII of the Lick Observatory Publications. But osculation is right, believe it or not.)

Let us look over the captain's shoulder at the entries in his log book. He has copied them from the readings on the instrument panel which is a mass of dials registering the indications of super-sensitive recording devices. Not only do they tell the position and velocity of the ship but the type of orbit it is pursuing as well. Assume the ship is launched on midnight of Saturday, December 1, 1945. We shall use four figures to denote the time. Thus 0719 means 7 hours 19 minutes in the morning; 1556 means 3 hours 56 minutes in the afternoon.

LOG OF THE UNITED STATES SHIP X-1

1945 Saturday December 1, 0000. The ship left Earth with speed of 25.74 mps. Distance from center of attraction hereafter referred to as "distance" was one radius or 4,000 miles. Osculating orbit is elongated ellipse with perihelion point on orbit of Earth at distance from Sun of 92,900,000 miles. Aphelion point on opposite side of

Sun is at distance of 1,625,290,000 miles, which is almost to the orbit of Uranus.

0017. Velocity 23.9 mps. Distance 6,950 miles. Already the attraction of Earth has drastically altered our path. The orbit is shrinking and at the same time growing fatter. In addition, the whole orbit is being twisted around counter-clockwise or in the direction of the Earth's revolution around the Sun so that the axis now makes an angle of 16° with the original starting position.

The perihelion of our present orbit is 2,000,000 miles inside the orbit of Earth, while the aphelion distance has undergone the enormous contraction from the orbit of Uranus down to that of Jupiter.

0045. Velocity 22.2 mps. Distance 13,550 miles. Orbit shrinking fast. Aphelion point has moved from distance of Jupiter down to 244,000,000 miles in last twenty-eight minutes. Orbit also continues rotation westward, being now 24° from original orientation.

The velocity of the ship with respect to the Earth undergoes a sharp drop at first and then appears to speed up again. The attraction of the Earth causes the ship to deviate toward the Sun, so that it moves directly across the Earth's orbit from the right side of the globe to the morning side. As a result, for a few minutes the ship lies directly in the path of the advancing Earth. Then the ship and Earth continue on their sepa-

rate paths and the gap between them widens rapidly.

0152. Velocity 21.3 mps. Distance 28,600 miles. Aphelion distance down to 184,314,000 miles. If this continues, we will be lucky if we get as far as Mars.

0345. Velocity 20.9 mps. Distance 51,240 miles. Our perihelion distance has settled down to a steady value of about 90,000,000 miles. Aphelion distance now 165,540,000 miles. Thus contraction continues but at less alarming rate than at 0152. Also rotation westward has virtually ceased after twisting orbit through 29°.

0730. Velocity 20.6 mps. Distance 92,890 miles. Aphelion distance 155,929,000 miles.

We are really getting out into space! Through the west window the Earth resembles the Moon as it appears at first quarter, but is about three times as big.

Sunday, December 2. 0000. Velocity 20.5 mps. Distance 262,360 miles. We passed the orbit of the Moon a few minutes ago which was the scene of an initiation ceremony for those who had never crossed this magic line before. At the end of the first twenty-four hours we are moving in an orbit that has its aphelion point at a distance of 148,700,000 miles from the Sun, or slightly beyond the path of Mars. But the attraction of the Earth is waning fast as shown by the gravimeter. From now on Terra will have little power to alter our course.

Thursday, December 6. 0000. Velocity 20.3 miles. Distance 1,198,000 miles. Orbit has practically ceased to change. At last we can tell where we are headed! By pure coincidence the aphelion distance comes out almost exactly the distance of Mars, although there was no way of predicting this beforehand. We should reach the orbit of the Red Planet in about two hundred sixty-two days.

And so this would seem a good time to abandon ship, now that it is following an oval of conservative shape and size, that will neither freeze the passengers in the depths of space nor vaporize them as it brushes through the corona.

It would be interesting to determine the orbit of a body launched under all sorts of conditions; for example, one turned loose from an inner satellite of Jupiter. Unfortunately such determinations require so much figuring that the number of Saturday afternoons and Sundays sacrificed to the cause soon develops into a serious family problem. But the single example given here which has been carried through rigorously will serve to indicate the nature of the changes involved.

The development of suitable fuel is the next great problem awaiting solution. And when it is finally forthcoming it will constitute the third—and perhaps the final—approximation in the advancing conquest of space.

THE END.

EVIDENCE

by Isaac Asimov

You know, it would be mighty hard to get evidence that a robot claiming it was a man, was not. As a man, he'd have rights of privacy, and until you proved otherwise—

Francis Quinn was a politician of the new school. That, of course, is a meaningless expression, as are all expressions of the sort. Most of the "new schools" we have were duplicated in the social life of ancient Greece, and perhaps, if we knew more about it, in the social life of ancient Sumeria and in the lake dwellings of prehistoric Switzerland as well.

But, to get out from under what promises to be a dull and complicated beginning, it might be best to state hastily that Quinn neither ran for office nor canvassed for votes, made no speeches and stuffed no ballot boxes. Any more than Napoleon pulled a trigger at Austerlitz.

And since politics makes strange bedfellows—an expression not originating with me—Alfred Lanning, director of the engineering end of U. S. Robots & Mechanical Men Corporation, sat at the other side of the desk with his ferocious white

eyebrows bent far forward over eyes in which chronic impatience had sharpened to acuity. He was not pleased.

The fact, if known to Quinn, would have annoyed him not the least. His voice was friendly, perhaps professionally so.

"I assume you know Stephen Byerley, Dr. Lanning."

"I have heard of him. So have many people."

"Yes, so have I. Perhaps you intend voting for him at the next election."

"I couldn't say." There was an unmistakable trace of acidity here. "I have not followed the political currents, so I'm not aware that he is running for office."

"He may be our next mayor, and thereafter the regional governor of the American Union—and even global co-ordinator, some day. It's a fascinating prospect. Of course, he is only district attorney now, but great oaks—"

"Yes," interrupted Lanning. "I have heard the phrase before. But I wonder if we can get to the business at hand."

"We are at the business at hand, Dr. Lanning." Quinn's tone was very gentle. "It is to my interest to keep Mr. Byerley a district attorney at the very most, and it is to your interest to help me do so."

"To my interest? Come!" Lanning's eyebrows hunched low.

"Well, say then to the interest of the U. S. Robot & Mechanical Men Corporation, and so yours as well. In fact, I might go to the head of the company directly. I think you wouldn't want me to."

Dr. Lanning was silent a moment, chewing the cud of his thoughts. He said more softly, "I don't follow you at all, Mr. Quinn."

"I am not surprised, Dr. Lanning. But it's all rather simple. Do you mind?" Quinn lit a slender cigarette with a lighter of tasteful simplicity and his big-boned face settled into an expression of quiet amusement. "We have spoken of Mr. Byerley—a strange and colorful character. He was unknown three years ago. He is very well-known now. He is a man of force and ability, and certainly the most capable and intelligent prosecutor I have ever known. Unfortunately he is not a friend of mine—"

"I understand," said Lanning, mechanically. He stared at his fingernails.

"I have had occasion," continued Quinn, evenly, "in the past year to investigate Mr. Byerley—quite exhaustively. It is always useful,

you see, to subject the past life of reform politicians to rather inquisitive research. If you knew how often it helped—" He paused to smile humorlessly at the glowing tip of his cigarette. "But Mr. Quinn's past is unremarkable. A quiet life in a small town, a college education, a wife who died young, an auto accident with a slow recovery, law school, coming to the metropolis, an attorney."

Francis Quinn shook his head slowly, then added, "But his present life. Ah, that is remarkable. Our district attorney never eats!"

Lanning's head snapped up, old eyes surprisingly sharp, "Pardon me?"

"Our district attorney never eats." The repetition thumped by syllables. "I'll modify that slightly. He has never been seen to eat or drink. Never! Do you understand the significance of the word? Not rarely, but never!"

"I find that quite incredible. Can you trust your investigators?"

"I can trust my investigators, and I don't find it incredible at all. Further, our district attorney has never been seen to drink—in the aqueous sense as well as the alcoholic—nor to sleep. There are other factors, but I should think I have made my point."

Lanning leaned back in his seat, and there was the rapt silence of challenge and response between them, and then the old roboticist shook his head. "No. There is only one thing you can be trying to imply, if I couple your statements

with the fact that you present them to me, and that is impossible."

"But the man is quite inhuman, Dr. Lanning."

"If you told me he were Satan in masquerade, there would be a faint chance that I might believe you."

"I tell you he is a robot, Dr. Lanning."

"I tell you it is as impossible a conception as I have ever heard, Mr. Quinn."

Again the combative silence.

"Nevertheless," and Quinn stubbed out his cigarette with elaborate care, "you will have to investigate this impossibility with all the resources of the Corporation."

"I'm sure that I could undertake no such thing, Mr. Quinn. You don't seriously suggest that the Corporation take part in local politics."

"You have no choice. Supposing I were to make my facts public without proof. The evidence is circumstantial enough."

"Suit yourself in that respect."

"But it would not suit me. Proof would be much preferable. And it would not suit you, for the publicity would be very damaging to your company. You are perfectly well acquainted, I suppose, with the strict rules against the use of robots on inhabited worlds."

"Certainly!"—brusquely.

"You know that the U. S. Robot & Mechanical Men Corporation is the only manufacturer of positronic robots in the Solar System, and if Byerley is a robot, he is a *positronic* robot. You are also aware that all positronic robots are leased, and

not sold; that the Corporation remains the owner and manager of each robot, and is therefore responsible for the actions of all.

"It is an easy matter, Mr. Quinn, to prove the Corporation has never manufactured a robot of a humanoid character."

"It can be done? To discuss merely possibilities."

"Yes. It can be done."

"Secretly, I imagine, as well. Without entering it in your books."

"Not the positronic brain, sir. Too many factors are involved in that, and there is the tightest possible government supervision."

"Yes, but robots are worn out, break down, go out of order—and are dismantled."

"And the positronic brains re-used or destroyed."

"Really?" Francis Quinn allowed himself a trace of sarcasm. "And if one were, accidentally, of course, not destroyed—and there happened to be a humanoid structure waiting for a brain."

"Impossible?"

"You would have to prove that to the government and the public, so why not prove it to me now."

"But what could our purpose be?" demanded Lanning in exasperation. "Where is our motivation? Credit us with a minimum of sense."

"My dear sir, please. The Corporation would be only too glad to have the Global Council permit the use of humanoid positronic robots on inhabited worlds. The profits would be enormous. But the prejudice of the public against such a practice is too great. Suppose you

get them used to such robots first—see, we have a skillful lawyer, a good mayor, a wonderful co-ordinator—and he is a robot. Won't you buy our robot butlers?"

"Thoroughly fantastic. An almost humorous descent to the ridiculous."

"I imagine so. Why not prove it? Or would you still rather try to prove it to the public?"

The light in the office was dimming, but it was not yet too dim to obscure the flush of frustration on Alfred Lanning's face. Slowly, the roboticist's finger touched a knob and the wall illuminators glowed to gentle life.

"Well, then," he growled, "let us see."

The face of Stephen Byerley is not an easy one to describe. He was forty by birth certificate and forty by appearance—but it was a healthy, well-nourished good-natured appearance, of forty; one that automatically drew the teeth of the bromide about "looking one's age."

This was particularly true when he laughed, and he was laughing now. It came loudly and continuously, died away for a bit, then began again—

And Alfred Lanning's face contracted into a rigidly bitter monument of disapproval. He made a half gesture to the woman who sat beside him, but her thin, bloodless lips merely pursed themselves a trifle.

Byerley gasped himself a stage nearer normality.

"Really, Dr. Lanning . . . really—I . . . I . . . a robot?"

Lanning bit his words off with a snap, "It is no statement of mine, sir. I would be quite satisfied to have you a member of humanity. Since our corporation never manufactured you, I am quite certain that you are—in a legalistic sense, at any rate. But since the contention that you are a robot has been advanced to us seriously by a man of certain standing—"

"Don't mention his name, if it would knock a chip off your granite block of ethics, but let's pretend it was Frank Quinn, for the sake of argument, and continue."

Lanning drew in a sharp, cutting snort at the interruption, and paused ferociously before continuing with added frigidity,"—by a man of certain standing, with whose identity I am not interested in playing guessing games, I am bound to ask your co-operation in disproving it. The mere fact that such a contention could be advanced and publicized by the means at this man's disposal would be a bad blow to the company I represent—even if the charge were never proven. You understand me?"

"Oh, yes, your position is clear to me. The charge itself is ridiculous. The spot you find yourself in is not. I beg your pardon, if my laughter offended you. It was the first I laughed at, not the second. How can I help you?"

"It would be very simple. You have only to sit down to a meal at a restaurant in the presence of witnesses, have your picture taken,

and eat." Lanning sat back in his chair, the worst of the interview over. The woman beside him watched Byerley with an apparently absorbed expression but contributed nothing of her own.

Stephen Byerley met her eyes for an instant, was caught by them, then turned back to the roboticist. For a while his fingers were thoughtful over the bronze paperweight that was the only ornament on his desk.

He said quietly, "I don't think I can oblige you."

He raised his hand, "Now wait, Dr. Lanning. I appreciate the fact that this whole matter is distasteful to you, that you have been forced into it against your will, that you feel you are playing an undignified and even ridiculous part. Still, the matter is even more intimately concerned with myself, so be tolerant.

"First, what makes you think that Quinn—this man of a certain standing, you know—wasn't hoodwinking you, in order to get you to do exactly what you are doing."

"Why, it seems scarcely likely that a reputable person would endanger himself in so ridiculous a fashion, if he weren't convinced he were on safe ground."

There was little humor in Byerley's eyes, "You don't know Quinn. He could manage to make safe ground out of a ledge a mountain sheep couldn't handle. I suppose he showed the particulars of the investigation he claims to have made of me?"

"Enough to convince me that it

would be too troublesome to have our corporation attempt to disprove them when you could do so more easily."

"Then you believe him when he says I never eat. You are a scientist, Dr. Lanning. Think of the logic required. I have not been observed to eat, therefore, I never eat Q.E.D. After all!"

"You are using prosecution tactics to confuse what is really a very simple situation."

"On the contrary, I am trying to clarify what you and Quinn between you are making a very complicated one. You see, I don't sleep much, that's true, and I certainly don't sleep in public. I have never cared to eat with others—an idiosyncrasy which is unusual and probably neurotic in character, but which harms no one. Look, Dr. Lanning, let me present you with a suppositious case. Supposing we had a politician who was interested in defeating a reform candidate at any cost and while investigating his private life came across oddities such as I have just mentioned.

"Suppose further that in order to smear the candidate effectively, he comes to your company as the ideal agent. Do you expect him to say to you, 'So-and-so is a robot because he hardly ever eats with people, and I have never seen him fall asleep in the middle of a case; and once when I peeped into his window in the middle of the night, there he was, sitting up with a book; and I looked in his refrigerator and there was no food in it.

"If he told you that, you would

send for a strait jacket. But if he tells you, 'He never sleeps; he never eats,' then the shock of the statement blinds you to the fact that such statements are impossible to prove. You play into his hands by contributing to the to-do."

"Regardless, sir," began Lanning, with a threatening obstinacy, "of whether you consider this matter serious or not, it will require only the meal I mentioned to end it."

Again Byerley turned to the woman, who still regarded him expressionlessly. "Pardon me. I've caught your name correctly, haven't I? Dr. Susan Calvin?"

"Yes, Mr. Byerley."

"You're the U. S. Robots' psychologist, aren't you?"

"Robopsychologist, please."

"Oh, are robots so different from men, mentally?"

"Worlds different." She allowed herself a frosty smile. "Robots are essentially decent."

Humor tugged at the corners of the lawyer's mouth, "Well, that's a hard blow. But what I wanted to say was this. Since you're a psycho—a robopsychologist, and a woman, I'll bet that you've done something that Dr. Lanning hasn't thought of."

"And what is that?"

"You've got something to eat in your purse."

Something caught in the schooled indifference of Susan Calvin's eyes. She said, "You surprise me. Mr. Byerley."

And opening her purse, she produced an apple. Quietly, she handed it to him. Dr. Lanning,

after an initial start, followed the slow movement from one hand to the other with sharply alert eyes.

Calmly, Stephen Byerley bit into it, and calmly he swallowed it.

"You see, Dr. Lanning?"

Dr. Lanning smiled in a relief tangible enough to make even his eyebrows appear benevolent. A relief that survived for one fragile second.

Susan Calvin said, "I was curious to see if you would eat it, but, of course, in the present case, it proves nothing."

Byerley grinned, "It doesn't?"

"Of course not. It is obvious, Dr. Lanning, that if this man were a humanoid robot, he would be a perfect imitation. He is almost too human to be credible. After all, we have been seeing and observing human beings all our lives; it would be impossible to palm something merely right off on us. It would have to be *all* right. Observe the texture of the skin, the quality of the irises, the bone formation of the hand. If he's a robot, I wish U. S. Robots had made him, because he's a good job. Do you suppose then, that anyone capable of paying attention to such niceties would neglect a few gadgets to take care of such things as eating, sleeping, elimination? For emergency use only, perhaps; as, for instance, to prevent such situations as are arising here. So a meal won't really prove anything."

"Now wait," snarled Lanning, "I am not quite the fool both of you make me out to be. I am not interested in the problem of Mr. Byerley's humanity or nonhumanity.

I am interested in getting the corporation out of a hole. A public meal will end the matter and keep it ended no matter what Quinn does. We can leave the finer details to lawyers and robopsychologists."

"But, Dr. Lanning," said Byerley, "you forget the politics of the situation. I am as anxious to be elected, as Quinn is to stop me. By the way, did you notice that you used his name. It's a cheap shyster trick of mine; I knew you would, before you were through."

Lanning flushed, "What has the election to do with it?"

"Publicity works both ways, sir. If Quinn wants to call me a robot, and has the nerve to do so, I have the nerve to play the game his way."

"You mean you—" Lanning was quite frankly appalled.

"Exactly. I mean that I'm going to let him go ahead, choose his rope, test its strength, cut off the right length, tie the noose, insert his head and grin. I can do what little else is required."

"You are mighty confident."

Susan Calvin rose to her feet, "Come, Alfred, we won't change his mind for him."

"You see." Byerley smiled gently. "You're a human psychologist, too."

But perhaps not all the confidence that Dr. Lanning had remarked upon was present that evening when Byerley's car parked on the automatic treads leading to the sunken garage, and Byerley himself crossed the path to the front door of his house.

The figure in the wheel chair looked up as he entered and smiled. Byerley's face lit with affection. He crossed over to it.

The cripple's voice was a hoarse, grating whisper that came out of a mouth forever twisted to one side, beering out of a face that was half scar tissue, "You're late, Steve."

"I know, John, I know. But I've been up against a peculiar and interesting trouble today."

"So?" Neither the torn face nor the destroyed voice could carry expression, but there was anxiety in the clear eyes. "Nothing you can't handle?"

"I'm not exactly certain. I may need your help. You're the brilliant one in the family. Do you want me to take you out into the garden? It's a beautiful evening."

Two strong arms lifted John from the wheel chair. Gently, almost caressingly, Byerley's arms went around the shoulders and under the swathed legs of the cripple. Carefully, and slowly, he walked through the rooms, down the gentle ramp that had been built with a wheel chair in mind, and out the back door into the walled and wired garden behind the house.

"Why don't you let me use the wheel chair, Steve? This is silly."

"Because I'd rather carry you. Do you object? You know that you're as glad to get out of that motorized buggy for a while as I am to see you out. How do you feel today?" he deposited John with infinite care upon the cool grass.

"How should I feel? But tell me about your trouble."



"Quinn's campaign will be based on the fact that he claims I'm a robot."

John's eyes opened wide, "How do you know? It's impossible. I won't believe it."

"Oh, come, I tell you it's so. He had one of the big-shot scientists of U. S. Robot & Mechanical Men Corporation over at the office to argue with me."

Slowly John's hands tore at the grass, "I see. I see."

Byerley said, "But we can let

him choose his ground. I have an idea. Listen to me and tell me if we can do it—"

The scene as it appeared in Alfred Lanning's office that night was a tableau of stares. Francis Quinn stared meditatively at Alfred Lanning. Lanning's stare was savagely set upon Susan Calvin, who stared impassively in her turn at Quinn.

Francis Quinn broke it with a heavy attempt at lightness, "Bluff. He's making it up as he goes along."

"Are you going to gamble on that, Mr. Quinn?" asked Dr. Calvin, indifferently.

"Well, it's your gamble, really."

"Look here," Lanning covered definite pessimism with bluster, "we've done what you asked. We witnessed the man eat. It's ridiculous to presume him a robot."

"Do you think so?" Quinn shot towards Calvin. "Lanning said you were the expert."

Lanning was almost threatening, "Now, Susan—"

Quinn interrupted smoothly, "Why not let her talk, man? She's been sitting there imitating a gatepost for half an hour."

Lanning felt definitely harassed. From what he experienced then to incipient paranoia was but a step. He said, "Very well. Have your say, Susan. We won't interrupt you."

Susan Calvin glanced at him humorlessly, then fixed cold eyes on Mr. Quinn. "There are only two ways of definitely proving Byerley to be a robot, sir. So far you are presenting circumstantial evidence, with which you can accuse, but not prove—and I think Mr. Byerley is sufficiently clever to counter that sort of material. You probably think so yourself, or you wouldn't have come here.

"The two methods of *proof* are the physical and the psychological. Physically, you can dissect him or use an X ray. How to do that would be your problem. Psychologically, his behavior can be studied, for if he is a positronic robot, he must conform to the three

Rules of Robotics. A positronic brain can not be constructed without them. You know the Rules, Mr. Quinn?"

She spoke them carefully, clearly, quoting word for word the famous bold print on page one of the "Handbook of Robotics."

"Rule One: A robot may not harm, nor, by inaction, cause to be harmed, any human being.

"Rule Two: A robot must obey all orders given it by authorized personnel, except where these would conflict with Rule One.

"Rule Three: A robot must preserve its own safety, except where that would conflict with Rules One and Two."

"I've heard of them," said Quinn, carelessly.

"Then the matter is easy to follow," responded the psychologist, dryly. "If Mr. Byerley breaks any of those three rules, he is not a robot. Unfortunately, this procedure works in only one direction. If he lives up to the rules, it proves nothing one way or the other."

Quinn raised polite eyebrows, "Why not, doctor?"

"Because, if you stop to think of it, the three Rules of robotics are the essential guiding principles of a good many of the world's ethical systems. Of course, every human being is supposed to have the instinct of self-preservation. That's Rule Three to a robot. Also every 'good' human being, with a social conscience and a sense of responsibility, is supposed to defer to proper authority; to listen to his doctor, his boss, his government, his psychia-

trist, his fellow-man; to obey laws, to follow rules, to conform to custom—even when they interfere with his comfort or his safety. That's Rule Two to a robot. Also, every 'good' human being is supposed to love others as himself, protect his fellow-man, risk his life to save another. That's Rule One to a robot. To put it simply—if Byerley follows all the Rules of Robotics, he may be a robot, and may simply be a very good man."

"But," said Quinn, "you're telling me that you can never prove him a robot."

"I may be able to prove him *not* a robot."

"That's not the proof I want."

"You'll have such proof as exists. You are the only one responsible for your own wants."

Here Lanning's mind leaped suddenly to the sting of an idea, "Has it occurred to anyone," he ground out, "that district attorney is a rather strange occupation for a robot? The prosecution of human beings—sentencing them to death—bringing about their infinite harm—"

Quinn grew suddenly keen, "No, you can't get out of it that way. Being district attorney doesn't make him human. Don't you know his record? Don't you know that he boasts that he has never prosecuted an innocent man; that there are scores of people left untried because the evidence against them didn't satisfy him, even though he could probably have argued a jury

into atomizing them? That happens to be so."

Lanning's thin cheeks quivered, "No, Quinn, no. There is nothing in the Rules of Robotics that makes any allowance for human guilt. A robot may not judge whether a human being deserves death. It is not for him to decide. *He may not harm a human—variety skunk, or variety angel.*"

Susan Calvin sounded tired. "Alfred," she said, "don't talk foolishly. What if a robot came upon a madman about to set fire to a house with people in it. He would stop the madmen, wouldn't he?"

"Of course."

"And if the only way he could stop him was to kill him—"

There was a faint sound in Lanning's throat. Nothing more.

"The answer to that, Alfred, is that he would do his best not to kill him. If the madman died, the robot would require psychotherapy because he might easily go mad at the conflict presented him—of having broken Rule One to adhere to Rule One in a higher sense. But a man would be dead and a robot would have killed him."

"Well, is Byerley mad?" demanded Lanning, with all the sarcasm he could muster.

"No, but he has killed no man himself. He has exposed facts which might represent a particular human being to be dangerous to the large mass of other human beings we call society. He protects the greater number and thus adheres to Rule One at maximum potential.

That is as far as he goes. It is the judge who then condemns the criminal to death or imprisonment, after the jury decides on his guilt or innocence. It is the jailer who imprisons him, the executioner who kills him. And Mr. Byerley has done nothing but determine truth and aid society.

"As a matter of fact, Mr. Quinn, I have looked into Mr. Byerley's career since you first brought this matter to our attention. I find that he has never demanded the death sentence in his closing speeches to the jury. I also find that he has spoken on behalf of the abolition of capital punishment and contributed generously to research institutions engaged in Criminal Neurophysiology." He apparently believes in the cure, rather than the punishment, of crime. I find that significant."

"You do?" Quinn smiled. "Significant of a certain odor of robotcity, perhaps?"

"Perhaps? Why deny it? Actions such as his could come only from a robot, or from a very honorable and decent human being. But you see, you just can't differentiate between a robot and the very best of humans."

Quinn sat back in his chair. His voice quivered with impatience. "Dr. Lanning, it's perfectly possible to create a humanoid robot that would perfectly duplicate a human in appearance, isn't it?"

Lanning harrumphed and considered, "It's been done experimentally by U. S. Robots," he said reluctantly, "without the addition

of a positronic brain, of course. By using human ova and hormone control, one can grow human flesh and skin over a skeleton of porous silicone plastics that would defy external examination. The eyes, the hair, the skin would be really human, not humanoid. And if you put a positronic brain, and such other gadgets as you might desire inside, you have a humanoid robot."

Quinn said shortly, "How long would it take to make one?"

Lanning considered, "If you had all your equipment—the brain, the skeleton, the ovum, the proper hormones and radiations—say, two months."

The politician straightened out of his chair. "Then we shall see what the insides of Mr. Byerley look like. It will mean publicity for U. S. Robots—but I gave you your chance."

Lanning turned impatiently to Susan Calvin, when they were alone. "Why do you insist—"

And with real feeling, she responded sharply and instantly, "Which do you want—the truth or my resignation? I won't lie for you. U. S. Robots can take care of itself. Don't turn coward."

"What," said Lanning, "if he opens up Byerley, and wheels and gears fall out. What then?"

"He won't open Byerley," said Calvin, disdainfully. "Byerley is as clever as Quinn, at the very least."

The news broke upon the city a week before Byerley was to have

been nominated. But "broke" is the wrong word. It staggered upon the city, shambled, crawled. Laughter began, and wit was free. And as the far-off hand of Quinn tightened its pressure in easy stages, the laughter grew forced, an element of hollow uncertainty entered, and people broke off to wonder.

The convention itself had the air of a restive stallion. There had been no contest planned. Only Byerley could possibly have been nominated a week earlier. There was no substitute even now. They had to nominate him, but there was complete confusion about it.

It wouldn't have been so bad if the average individual were not torn between the enormity of the charge, if true, and its sensational folly, if false.

The day after Byerley was nominated perfunctorily, hollowly—a newspaper finally published the gist of a long interview with Dr. Susan Calvin, "world-famous expert on robo-psychology and positronics."

What broke loose is popularly and succinctly described as hell.

It was what the Fundamentalists were waiting for. They were not a political party; they made pretense to no formal religion. Essentially they were those who had not adapted themselves to what had once been called the Atomic Age, in the days when atoms were a novelty. Actually, they were the Simple-Lifers, hungering after a Life, which, to those who lived it had probably appeared not so Simple, and who were, therefore,

Simple-Lifers themselves. But I grow complicated.

The Fundamentalists required no new reason to detest robots and robot manufacturers; but a new reason such as the Quinn-accusation and the Calvin analysis was sufficient to make such detestation audible.

The huge plants of the U. S. Robot & Mechanical Men Corporation was a hive that spawned armed guards. It prepared for war.

Within the city the house of Stephen Byerley bristled with police.

The political campaign, of course, lost all other issues, and resembled a campaign only in that it was something filling the hiatus between nomination and election.

Stephen Byerley did not allow the fussy little man to distract him. He remained comfortably unperturbed by the uniforms in the background. Outside the house, past the line of grim guards, reporters and photographers waited according to the tradition of the caste. One enterprising visor station even had a scanner focused on the blank entrance to the prosecutor's unpretentious home, while a synthetically excited announcer filled in with inflated commentary.

The fussy little man advanced. He held forward a rich, complicated sheet. "This, Mr. Byerley, is a court order authorizing me to search these premises for the presence of illegal . . . uh . . .

mechanical men or robots of any description."

Byerley half-rose, and took the paper. He glanced at it indifferently, and smiled as he handed it back. "All in order. Go ahead. Do your job. Mrs. Hoppen"—to his housekeeper, who appeared reluctantly from the next room—"please go with them, and help out if you can."

The little man, whose name, Harroway, is completely unimportant for our purposes, except for its possible use as a handle, hesitated, produced an unmistakable blush, failed completely to catch Byerley's eyes, and muttered, "Come on," to the two policemen.

He was back in ten minutes.

"Through?" questioned Byerley, in just the tone of a person who is not particularly interested in the question, or its answer.

Harroway cleared his throat, made a bad start in falsetto, and began again, angrily, "Look here, Mr. Byerley, our especial instructions were to search the house very thoroughly."

"And haven't you?"

"We were told exactly what to look for."

"Yes?"

"In short, Mr. Byerley, and not to put too fine a point on it, we were told to search you."

"Me?" said the prosecutor with a broadening smile. "And how do you intend to do that?"

"We have a Peacet-radiation unit—"

"Then I'm to have my X-ray

photograph taken, hey? You have the authority?"

"You saw my warrant."

"May I see it again?"

Harroway, his forehead shining with considerably more than mere enthusiasm, passed it over a second time.

Byerley said evenly, "I read here as the description of what you're to search; I quote: 'the dwelling place belonging to Stephen Allen Byerley, located at 355 Willow Grove, Evanston, together with any garage, storehouse or other structures or buildings thereto appertaining, together with all grounds thereto appertaining' . . . um . . . and so on. Quite in order. But, my good man, it doesn't say anything about searching my interior. I'm not part of the premises. You may search my clothes if you think I've got a robot hidden in my pocket."

Harroway had no doubts on the point of to whom he owed his job. He did not propose to be backward, given a chance to earn a much better—i. e., more highly paid—job.

He said, in a faint echo of bluster, "Look here. I'm allowed to search the furniture in your house, and anything else I find in it. You're in it, aren't you?"

"A remarkable observation. I own in it. But I'm not a piece of furniture. As a citizen of adult responsibility—I have the psychiatric certificate proving that—I have certain rights under the World Articles. Searching me would come under the heading of vio-

lating my Right of Privacy. That paper isn't sufficient."

"Sure, but if you're a robot, you don't have any Right of Privacy."

"True enough—but that paper still isn't sufficient. It recognizes me implicitly as a human being."

"Where?" Harroway snatched at it.

"Where it says 'the dwelling place belonging to' and so on. A robot cannot own property. And you may tell your employer, Mr. Harroway, that if he tries to issue a similar paper which does not implicitly recognize me as a human being, he will be immediately faced with a restraining injunction and a civil suit which will make it necessary for him to *prove* me a robot by means of information now in his possession, or else to pay a whopping penalty for an attempt to deprive me unduly of my Rights under the World Articles. You'll tell him that, won't you?"

Harroway marched to the door. He turned. "You're a slick lawyer—" His hand was in his pocket. For a short moment, he stood there. Then he left, smiled in the direction of the visor scanner, still playing away—waved to the reporters, and shouted, "We'll have something for you tomorrow, boys. No kidding."

In his ground car, he settled back, removed the tiny mechanism from his pocket and carefully inspected it. It was the first time he had ever taken a photograph by X-ray reflection. He hoped he had done it correctly.

Quinn and Byerley had never met

face-to-face alone. But visor-phone was pretty close to it. In fact, accepted literally, perhaps the phrase was accurate, even if to each, the other were merely the light-and-dark pattern of a bank of photocells.

It was Quinn who had initiated the call. It was Quinn, who spoke first, and without particular ceremony, "Thought you'd like to know, Byerley, that I intend to make public the fact that you're wearing a protective shield against Penet-radiation."

"That so? In that case, you've probably already made it public. I have a notion our enterprising press representatives have been tapping my various communication lines for quite a while. I know they have my office lines full of holes; which is why I've dug in at my home these last weeks." Byerley was friendly, almost chatty.

Quinn's lips tightened slightly. "This call is shielded—thoroughly. I'm making it at a certain personal risk."

"So I should imagine. Nobody knows you're behind this campaign. At least, nobody knows it officially. Nobody doesn't know it unofficially. I wouldn't worry. So I wear a protective shield? I suppose you found that out when your puppy-dog's Penet-radiation photograph, the other day, turned out to be overexposed."

"You realize, Byerley, that it would be pretty obvious to everyone that you don't dare face X-ray analysis."

"Also that you, or your men,

attempted illegal invasion of my Right of Privacy."

"The devil they'll care for that."

"They might. It's rather symbolic of our two campaigns, isn't it? You have little concern with the rights of the individual citizen. I have great concern. I will not submit to X-ray analysis, because I wish to maintain my Rights on principle. Just as I'll maintain the rights of others when elected."

"That will no doubt make a very interesting speech, but no one will believe you. A little too high-sounding to be true. Another thing," a sudden, crisp change,

"the personnel in your home was not complete the other night."

"In what way?"

"According to the report," he shuffled papers before him that were just within the range of vision of the visiplate, "there was one person missing—a cripple."

"As you say," said Byerley, tonelessly, "a cripple. My old teacher, who lives with me and who is now in the country—and has been for two months. A 'much-needed rest' is the usual expression applied in the case. He has your permission?"

"Your teacher? A scientist of sorts?"



"A lawyer once—before he was a cripple. He has a government license as a research biophysicist, with a laboratory of his own, and a complete description of the work he's doing filed with the proper authorities, to whom I can refer you. The work is minor, but is a harmless and engaging hobby for a—poor cripple. I am being as helpful as I can, you see."

"I see. And what does this . . . teacher . . . know about robot manufacture?"

"I couldn't judge the extent of his knowledge in a field in which I am unacquainted."

"He wouldn't have access to positronic brains?"

"Ask your friends at U. S. Robots. They'd be the ones to know."

"I'll put it shortly, Byerley. Your crippled teacher is the real Stephen Byerley. You are his robot creation. We can prove it. It was he who was in the automobile accident, not you. There will be ways of checking the records."

"Really? Do so, then. My best wishes."

"And we can search your so-called teacher's 'country place,' and see what we can find there."

"Well, not quite, Quinn." Byerley smiled broadly. "Unfortunately for you, my so-called teacher is a sick man. His country place is his place of rest. His Right of Privacy as a citizen of adult responsibility is naturally even stronger, under the circumstances. You won't be able to obtain a warrant to enter his grounds without show-

ing just cause. And I don't think you'll be able to show just cause. As an adequate lawyer, specializing in the interpretation of the World Articles, I guarantee that you won't be able to show just cause. However, I'd be the last to prevent you from trying."

There was a pause of moderate length, and then Quinn leaned forward, so that his imaged-face expanded and the fine lines on his forehead were visible. "Byerley, why do you carry on? You can't be elected."

"Can't I?"

"Do you think you can? Do you suppose that your failure to make any attempt to disprove the robot charge—when you could easily, by breaking one of the Three Laws—does anything but convince the people that you *are* a robot."

"All I see so far is that from being a rather vaguely-known, but still largely-obscure metropolitan lawyer, I have now become a world-figure. You're a good publicist."

"But you *are* a robot."

"So it's been said, but not proven."

"It's been proven sufficiently for the electorate."

"Then relax—you've won."

"Good-by," said Quinn, with his first touch of viciousness, and the visiphone slammed off.

"Good-by," said Byerley imperturbably, to the blank plate.

Byerley brought his "teacher" back the week before election. The air car dropped quickly in an obscure part of the city.

"You'll stay here till after election," Byerley told him. "It would be better to have you out of the way if things take a bad turn."

The hoarse voice that twisted painfully out of John's crooked mouth might have had accents of concern in it. "There's danger of violence."

"The Fundamentalists threaten it, so I suppose there is, in a theoretical sense. But I really don't expect it. The Fundies have no real power. They're just the continuous irritant factor that might stir up a riot after a while. You don't mind staying here? Please. I won't be myself if I have to worry about you."

"Oh, I'll stay. You still think it will go well?"

"I'm sure of it. No one bothered you at the place?"

"No one. I'm certain."

"And your part went well?"

"Well enough. There'll be no trouble there."

"Then take care of yourself, and watch the televisor tomorrow, John." Byerley pressed the gnarled hand that rested on his.

Lenton's forehead was a furrowed study in suspense. He had the completely unenviable job of being Byerley's campaign manager in a campaign that wasn't a campaign, for a person that refused to reveal his strategy, and refused to accept his manager's.

"You can't!" It was his favorite phrase. It had become his only phrase. "I tell you, Steve, you can't!"

He threw himself in front of the prosecutor, who was spending his time, leafing through the typed pages of his speech.

"Put that down, Steve. Look, that mob has been organized by the Fundies. You won't get a hearing. You'll be stoned more likely. "Why do you have to make a speech before an audience? What's wrong with a recording, a visual recording?"

"You want me to win the election, don't you?" asked Byerley, mildly.

"Win the election! You're not going to win, Steve. I'm trying to save your life."

"Oh, I'm not in danger."

"He's not in danger. He's not in danger." Lenton made a queer, rasping sound in his throat. "You mean you're getting out on that balcony in front of fifty thousand crazy crackpots and try to talk sense to them—on a balcony like a medieval dictator?"

Byerley consulted his watch. "In about five minutes—as soon as the television lines are free."

Lenton's answering remark was not quite transliterable.

The crowd filled a roped-off area of the city. Trees and houses seemed to grow out of a mass-human foundation. And by ultra-wave, the rest of the world watched. It was a purely local election, but it had a world audience just the same. Byerley thought of that and smiled.

But there was nothing to smile at in the crowd itself. There were

banners and streamers, ringing every possible change on his supposed robotcy. The hostile attitude rose thickly and tangibly into the atmosphere.

From the start, the speech was not successful. It competed against the inchoate mob howl and the rhythmic cries of the Fundic clagues that formed mob-islands within the mob. Byerley spoke on, slowly, unemotionally—

Inside, Lenton clutched his hair and groaned—and waited for the blood.

There was a writhing in the front ranks. An anaglar citizen, with popping eyes, and clothes too short for the lank length of his limbs, was pulling to the fore. A policeman dived after him, making slow, struggling passage. Byerley waved the latter off, angrily.

The thin man was directly under the balcony. His words tore unheard against the roar.

Byerley leaned forward. "What do you say? If you have a legitimate question, I'll answer it." He turned to a flanking guard. "Bring that man up here."

There was a tensing in the crowd. Cries of "Quiet" started in various parts of the mob, and rose to a bedlam, then toned down raggedly. The thin man, red-faced and panting, faced Byerley.

Byerley said, "Have you a question?"

The thin man stared, and said in a cracked voice, "Hit me!"

With sudden energy, he thrust

out his chin at an angle. "Hit me! You say you're not a robot. Prove it. You can't hit a human, you monster."

There was a queer, flat, dead silence. Byerley's voice punctured it. "I have no reason to hit you."

The thin man was laughing wildly. "You can't hit me. You won't hit me. You're not a human. You're a monster, a make-believe man."

And Stephen Byerley, tight-lipped, in the face of thousands who watched in person and the millions who watched by screen, drew back his fist and caught the man cracklingly upon the chin. The challenger went over backwards in sudden collapse, with nothing on his face but blank, blank surprise.

Byerley said, "I'm sorry. Take him in and see that he's comfortable. I want to speak to him when I'm through."

And when Dr. Calvin, from her reserved space, turned her automobile and drove off, only one reporter had recovered sufficiently from the shock to race after her, and shout an unheard question.

Susan Calvin called over her shoulder, "He's human."

That was enough. The reporter raced away in his own direction.

The rest of the speech might be described as "Spoken, but not heard."

Dr. Calvin and Stephen Byerley met once again—a week before he

took the oath of office as mayor. It was late—past midnight.

Dr. Calvin said, "You don't look tired."

The mayor-elect smiled. "I may stay up for awhile. Don't tell Quinn."

"I shan't. But that was an interesting story of Quinn's, since you mention him. It's a shame to have spoiled it. I suppose you knew his theory?"

"Parts of it."

"It was highly dramatic. Stephen Byerley was a young lawyer, a powerful speaker, a great idealist—and with a certain flair for biophysics. Are you interested in robotics, Mr. Byerley?"

"Only in the legal aspects."

"This Stephen Byerley was. But there was an accident. Byerley's wife died; he himself, worse. His legs were gone; his face was gone; his voice was gone. Part of his mind was—bent. He would not submit to plastic surgery. He retired from the world, legal career gone—only his intelligence, and his hands left. Somehow he could obtain positronic brains, even a complex one, one which had the greatest capacity of forming judgments in ethical problems—which is the highest robotic function so far developed.

"He grew a body about it. Trained it to be everything he would have been and was no longer. He sent it out into the world as Stephen Byerley, remaining behind himself as the old, crippled teacher that no one ever saw—"

"Unfortunately," said the mayor-

elect, "I ruined all that by hitting a man. The papers say it was your official verdict on the occasion that I was human."

"How did that happen? Do you mind telling me? It couldn't have been accidental."

"It wasn't entirely. Quinn did most of the work. My men started quietly spreading the fact that I had never hit a man; that I was unable to hit a man; that to fail to do so under provocation would be sure proof that I was a robot. So I arranged for a silly speech in public with all sorts of publicity overtones, and almost inevitably, some fool fell for it. In its essence, it was what I call a shyster trick. One in which the artificial atmosphere which has been created does all the work. Of course, the

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emotional effects made my election certain, as intended."

The robopsychologist smiled faintly. "I see you intrude on my field—as every politician must, I suppose. But I'm very sorry it turned out this way. I like robots. I like them considerably better than I do human beings. If a robot can be created capable of being a civil executive, I think he'd make the best one possible. By the Laws of Robotics, he'd be incapable of harming humans, incapable of tyranny, of corruption, of stupidity, of prejudice. And after he had served a decent term, he would leave, even though he were immortal, because it would be impossible for him to hurt humans by letting them know that a robot had ruled them. It would be most ideal."

"Except that a robot might fail due to the inherent inadequacies of his brain. The positronic brain has never equalled the complexities of the human brain."

"He would have advisers. Not even a human brain is capable of governing without assistance."

Byerley considered Susan Calvin with grave interest. "Why do you smile, Dr. Calvin?"

"I smile because Mr. Quinn

didn't think of everything."

"You mean there could be more to that story of his."

"Only a little. For the three months before election, this Stephen Byerley that Mr. Quinn spoke about, this broken man, was in the country for some mysterious reason. He returned in time for that famous speech of yours. And after all, what the old cripple did once, he could do a second time, particularly where the second job is very simple in comparison to the first."

"I don't quite understand."

Dr. Calvin rose and smoothed her dress. She was obviously ready to leave. "I mean there is one time when a robot may strike a human being without breaking the First Law. Just one time."

"And when is that?"

Dr. Calvin was at the door. She said quietly, "When the human to be struck is merely another robot."

She smiled broadly, her thin face glowing. "Good-by, Mr. Byerley. I hope to vote for you five years from now—for co-ordinator."

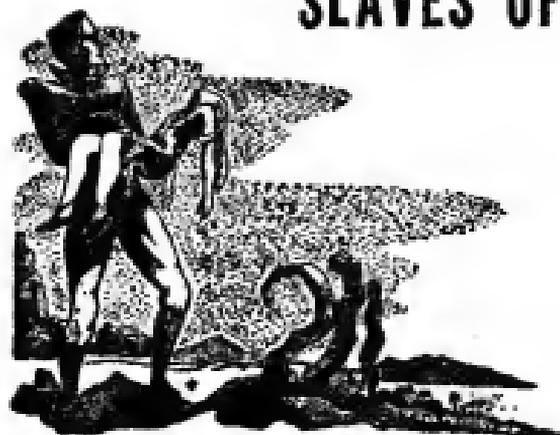
Stephen Byerley chuckled. "I must reply that that is a somewhat farfetched idea."

The door closed behind her.

THE END.

SLAVES OF THE LAMP

by
Arthur
Leo
Zagat



Sometimes the finest motives are the deadliest, the kindest acts, the stupidest—and an idealist can kill a city!

SYNOPSIS

Natlans was a Lampman at the Paris Peace Dome, the only international organization on Earth. During centuries of wars, vast numbers of humans had died, and the remainder had agreed that nonintercourse of nations was the first move toward a new world without war. All civilization was broken up into independent City-States, whose existence was possible because of the advancement of hydroponics and the sciences of molecular synthesis, by which all foods and all necessary

materials could be produced by each City, as needed.

The almost legendary inventor, Rad Hoskins, had developed the Hoskins Lamps—luminous globes in which were gathered visible signals of the emotional condition of the City-States. In the Peace Dome was a Lamp for each City. The duty of a Lampman was to watch his Lamp constantly for any shift in color. A change to the red would indicate excitement; to the blue, depression. So very sensitive were these carefully tended Lamps that the slightest temperamental change

of any population would be indicated in time to set into motion the second function of the Peace Dome—the generation of neutral currents which would stimulate or depress the emotional excitation of the area. There were also facilities for putting small concentrations of soporific gases into a City's atmosphere, and various harmless but effective drugs in the water supplies. There was very little traffic between Cities, although it was not forbidden.

Natlane—(his names contracted as was the custom among Lampmen) was called into the headquarters of old Rudolf van Gooch, Commander in Chief of the Sociological Control Board (SCB) which operated the Dome. Van Gooch questioned Natlane as to his spare-time research. Natlane admitted to being very close to the development of a new race of humans, ruled by reason and not by emotion, who would, he believed, become the New Humanity, a civilized, progressive, and warless race.

To Natlane's utter surprise, Van Gooch suggested that he cease his work. Since it was every Lampman's right to do what he wished with his own time, Natlane angrily refused. Van Gooch's lovely receptionist, Marilee, tried to calm the young Lampman down, but could not. Natlane determined to go on with his work, but, in direct violation of every tradition of the Dome, was refused materials at the laboratory! He determined to bring the matter up before a meeting of the Psychoneers' Union.

Meanwhile, two of Natlane's

close friends, Stanrod and Jocarter, went to Nyork to see an airpols game, and while there Jocarter discovered the existence of a movement known only as *The Work*—a secret, City-owned battle fleet, army, and armament industry! Jocarter was horrified to learn that Stanrod already knew about it—was, in fact, part of the movement. Jocarter threatened to tell the Dome officials about it and as a result the two Lampinen were put in protective custody by the City of Nyork until Jocarter should see reason.

Back in Paris, Natlane met Ivan Plonitch, Commissar of Cultural Welfare of the City-State of Irkutsk, and his servant, Gregor. Ivan wanted to save the world through culture. He and Natlane had quite a drinking bout, during which Natlane told the Irkutskan about his work. Ivan was anxious to promote his own ideas through the Psychoneers' Union and asked Natlane to get him permission to address the group. Natlane agreed and made the arrangements when they arrived at the union hall that evening. Suddenly Natlane felt a touch on his arm. It was Marilee. She took him aside and warned him against Van Gooch. As they talked, a cloud of black, paralyzing gas descended over the couple, and they were carried helplessly away by three men in concealing black garments.

After the union meeting, at which Ivan failed miserably to interest the psychoneers in his cultural program, a delegation went to Chief van Gooch to report that Stanrod,

Tocariter, and Natlane were missing, and to demand that Van Gooch's order about Natlane's research materials be rescinded. To their surprise, Van Gooch agreed readily. "And why not?" smiled Niyakina, Lampman for Kobe, after they left. "Natlane wins—if Natlane ever returns to enjoy victory!"

PART II

XI.

Natlane had no time sense of the period that had elapsed since the black gas had taken from him sight and will. He knew, however, that it must now be somewhere around midday, since a beam of sunlight slanted steeply down from above him.

Still muddy-minded with the uneasy sleep into which he'd fallen after what had seemed hours of staring into silent nothingness, and out of which he'd just awakened, he discerned that the light entered through an opening in a murky, planar room. The bottom and sides of the aperture were fairly straight but the top was a flattened arch. By the angle, on the hole's inner vertical edge, of the sharp division between brightness and shadow, it was deep. About a half meter he judged. Too deep at any rate for him to make out what cut into the brilliant shaft four vertical planes of darkness.

It was beaded with viscid moisture and exuded a dank stench that twisted the Lampman's empty stomach into knots. The same fetor

rose from the floor where he lay, and the chill damp had soaked through his uniform, was clammy against his skin.

Close over the top of the opening, a coil of the same curious construction paralleled the curve of its arch and dripped tiny, pallid stalactites. Natlane's throat clamped. His skin was an icy, crawling sheath for his strengthless body!

Something was in here with him. Something alive. Menacing.

He'd heard a sudden, incautious pad of soft paw, one only, and now very faintly a susurrus of furtive breathing. If only he could turn his head— He could! It had rolled in compliance with the thought and Natlane was gaping along the mucked floor at—

Marilee!

She was curled in the barred pool of sunlight, one hand flung out palm down to thump stone and startle him. The dark cape she'd worn last night was a crumpled bed for her slim body, its hood for the flame of her hair. She lay on the cape like a child in dreamless sleep, but tears had traced pale lines across the grimed cheeks on which her wet lashes moved minutely with the rhythm of her breathing.

As Natlane stared, the lashes flickered and parted. Irises, more violet than gray in the sun's light, were misted for an instant, then pupils grew large with remembered terror. "Hold it," Nat said low-toned. "Hold everything, Marilee. Getting panicked won't help."

She rewarded him with a quick gasp of breath and a tremulous smile. He pulled himself up, sitting, and the girl imitated him. Her look darted to the sun-filled aperture above, about the noisome small chamber, to the niche in the wall behind her—its bottom floor-level, its arched top somewhat higher than a man's head—back to Natlane. "Where . . . where are we?"

He made himself grin. "Sorry, miss. I'm a stranger here myself."

"I thought you might— They caught you in that horrible blackness, too." She shuddered. "How did they do it, Nat? What was it?"

He shrugged, knew his own eyes were somber. "I've a hunch it's the stuff the Berlners used during the War of the Cities to capture unharmed and control the prisoners they used for slaves. Under the Pact, the remaining supply was to be dissipated and the formula destroyed, but apparently— The devil with that! Why worry about how we got in here? Our problem is to get out." He found he could rise as lithely as though the connection between his brain and his limbs had never been severed. "I'm going to take a look-see at that door." He crossed to it.

"Not even a handle, to give you a grip on it. And it seems to be fitted tight against the outer side of the bricks." Natlane put palms flat against the wood, shoved to the left, to the right, even up, without result. Marilee suggested trying to

push it outward, added her weight to his in the attempt. They tried in the center and at either side but for all the success they attained, the slab might be part of the wall itself.

"But it can't be," the girl frowned. "We were brought in here somehow and it's the only possible way. No, it isn't!" She turned, pointed to the aperture through which the sun slanted in. "How about that?"

"I think I would have noticed if I'd dropped that distance."

"It can't hurt to see if it's a way out."

"No, it can't." Nat crossed to the opposite wall. The sill was well above his head, but he got a grip on it with his hands and leaped, contrived to get his knees to it. The direct sunlight dazzled him and then his vision cleared.

He was facing four vertical round rods of the same iron as strapped the door, pitted with corrosion but nowhere less than the thickness of his thumbs. Their ends were obviously deep-sunken in the bricks, top and bottom, and the spaces between were too narrow for anyone but an infant to squeeze through.

"Well?" Marilee called from below.

Natlane didn't answer but reached in and tugged at the bars. They were immovable as the door. He put his face close to them, peered out.

Across a wide stream a cliff rose steeply for some two hundred meters, vertically convoluted

like some immense dark curtain instantaneously petrified. Mid-river a shattered talus of stones broke the glittering surface, night-marish with blind faces, with a skewed shape that seemed to have a sardonic human countenance, horns and a beast's pointed ears, a bird's folded wings. Pressing his brow against the iron and straining to look down, the Lampman discerned that just beneath his vantage point the water ran sluggishly along a rocky wall bearded with long green pennants of algae.

The floor of the room was well below that purling surface, but there was ample evidence that in some long ago time the river had lapped this very sill.

He had never heard that it was possible to descend so near the level of the Seine save by clambering perilously down the lavalike precipices that confined it. That level, he knew, was lower if anything than before the Paris that was had been destroyed and so this chamber must have been hollowed out beneath the streets of the vanished City. He twisted to a rasping and agonized squeal.

Marilee, too, had whirled, was gaping at the embrasured door from which the squeal came. Pivoting on its left, it was swinging outward, and over the free right edge were folded blunt-tipped fingers, the yellow gray of dead flesh.

XII.

"Well, that's about all," said Gar Whitney.

For two days they had been on an extensive tour of an incredible series of underground hangars, factories, warehouses, tank farms and ammunition dumps. An entire secret city was scattered in secret places around Nyork.

"It isn't justified," said Jocarier stubbornly. "It can't be. It doesn't jibe with the Hoskins Plan, and so help me, I believe in the Hoskins Plan with everything I've got. I won't see it endangered by anything like this. Whitney—Stan—I give you fair warning. If I ever get to a communicator, I'll bust this whole dirty business wide open."

"But Jo—come down to earth! You've seen the document files. After that, how could you doubt that other Cities are armed and begging for an excuse to attack?"

"Documents? You mean that mass of fantasy you projected for me in the library? What do you think I am—a child? Any clever fictioneer could dream those up. What authenticity could they have, coming from a group of pirates like yourselves who have had years of practice in falsifying tax accounts to cover your illegal expenses?"

"He's got us," said Stanrod. "The guy just won't be convinced. And Gar—we've got to get back to Paris sometime."

"Oh—that," said Whitney. "I've done what I could about that. Sent an official police report that the two of you were in danger here and were being held in protective cus-

today. Took advantage of the ninety-day restricted business clause in the Dome Charter. In other words, providing the City can prove you're alive and well, we won't have to state our reasons for your detention for three months. By that time we can figure out a good reason—but it doesn't look to me as if our hog-headed friend here will be convinced in three years, let alone three months."

"Jo, boy," said Stanrod entreatingly, "knock it off, will you? You can't accomplish anything by this silly stalemate. What can I do—what can I say to convince you? We're not asking much—just that you come on back to Paris and promise to say nothing about The Work to anyone—go on about your work as if nothing had happened. You'll be a better, more watchful Lampman because of it. You know you will."

"Stan, you know me better than that. I can not and will not condone a state of affairs which is at complete odds with the oaths I have taken. You have taken the same oaths; you have chosen to put your own interpretation on them. Here's what it boils down to; I see only one way to save humanity from itself, and that's Rad Hoskins' way. And I'll do everything in my power to do it that way—if I get killed in the attempt."

Gar Whitney looked down into his hands unhappily. "Even that, eh?" he said quietly, ominously. Suddenly he looked up. "Jocarter—listen to me. If a municipal

emergency comes up—if Nyork is attacked, or if you see with your own eyes that she is about to be attacked, will you believe then that other Cities are armed, and that The Work is an absolute necessity for the maintenance of peace and the saving of human lives?"

"Why, certainly. Only you'll never prove it to me."

"I . . . don't . . . know," said Gar Whitney, "whether I hope you get your proof, or not. Convincing you would be a poor reward for having to fight a war."

Gar's deep-chested tones were so somber that Jocarter's head came up with a jerk. He looked at the man with a new respect. He had not realized before that Gar Whitney was utterly sincere—that he hated war with the indoctrinated passion of a Lampman.

Crouched on the high sill, Natlane watched the ancient portal squeal open and the widening slit between its edge and jamb fill with darkness. A more material shadow clotted and detached itself, and there moved into the brickwalled cell a being shaped like a man yet somehow seeming less than a man though other than animal.

As he shambled in, Marilee backed from him, hand to mouth and a tiny, unconscious whimper at the back of her throat.

The intruder moved a half meter in, stopped and stood blinking as if bemused by the light. His face, now distinct, was like a mask abandoned by some inept modeler before the sketch was more than

fairly started. The mouth was a straight, lipless gash, the nose a gray-yellow blob, the brow shoved a little askew as by a clumsy or exasperated hand-heel.

Eyes smudged into the pallid flesh by a sooty thumb found the girl, left her, to wander about the chamber, dully hunting something they could not find and were dumbly surprised they could not find.

Garments the color of dirt, their fabric so moldered as to be without texture or definition, clothed the uncouth frame. The arm whose hand had pulled open the door dangled so long that its knuckles were almost beside a bent knee. The other arm was bent up so as to support between curved paw, inner crook of elbow and cavernous chest what appeared to be a large, round plate on which something was concealed by cloth thrown over it.

The smudged eyes returned to Marilee. The mouth writhed, opened, emitted sounds spaced like words and having the inflection of a question, but utter gibberish. "Oo ay lomn?"

The girl gasped and a visible tremor ran through her.

"Deet! Oo eht ill?"

Natlane realized that, above the creature's level of vision, he was unseen, that his whereabouts was being demanded. "I'll dwaht ehtreh issee." A note of slowly developing anger entered the mouthed syllables. "Oo seh kahsht ill?"

"Kee?" The new voice was thin, quavering. "Dsheneay say pah deh kee teh parl, twah." It was Mari-

lee's! Marilee was answering the brute in its own bestial lingo. "Kahn dzhe reveyeyah, dzhetay lah sul." Haltingly, but comprehensibly, for a growl rumbled in the fellow's chest, became syllabic.

"Seht ahn mensonge!" Somehow Natlane comprehended that. He was calling Marilee a liar. She must have said she didn't know where he was and he was giving her the lie. "Too ay mahntoise."

"May nohn!" She stamped her foot petulantly and without change of tone went on, "*He's left the door open—* Pahrdohn. *Dzhay dee persohn netayt pazissee the door Nat ay say vray.*"

The door was ajar behind the hulk who mumbled, somewhat more uncertainly, "Snay pah possibleh. Ill etayt—" Natlane hunched legs under him, launched from the sill!

The corpse-like face jerked up—and took a heel square on its blobbed nose. There was a bellow, a deafening crash and both collapsed atop a spatter of warm mush. Natlane flailed fists into sickeningly soft flesh that retorted with jarring but illy planted blows. "Get out," Nat gasped, floundering in a mess of sharp shards. "Marilee, get out," took pounding knuckles in his teeth and heard a thud of ponderous footfalls, a choked scream—

Was numbed by a clip at the base of his skull.

Natlane rolled, loglike and helpless, to his back. Marilee was flattened against a wall, arms out sideways and palming the festered

brick, her wide-pupilled eyes on the apparition standing over him, black cloak, black hood within which was—not a face, just blank blackness!

"Vah, imbehseel!" Gesturing to the exit, the newcomer's arm was a great black wing. "Vahton! Dehpesh twa." Nat's late antagonist mumbled something and lumbered erect, lumbered out, cringing and uncouth and somehow pathetic. Within the black hood was a rasping laugh. "You are a . . . how you say? . . . a doombell, Natlane." The muffled voice was unrecognizable. "All zat stunt haf gain for you ees ze loss off your break fas'. Don't try eet again, though. Ze nex' time eet may be worse."

Staring up, Natlane saw a black-gloved hand in the fluttering sleeve of the cloak, saw that it gripped a thick-barreled, bell-mouthed device that resembled in a grotesque manner the revolvers he'd seen used in historical teleplays. "Eef you do not care for yourself, haf' some conseederasiohn for ze young lady."

Black draperies fluttered and merged with the blackness outside, and the portal thudded shut. There was a final thump against the wood, obviously of some fastening. Marilee sobbed and came away from the wall and knelt on the mucked floor beside Natlane.

Her fingers hurt, massaging the back of his neck, but movement came back to him. "Thanks," he told her and sat up out of the welter of smashed dishes and ruined

food, and gazed forlornly at the tray that had fallen against the wall and leaned crazily there. "Well," he made shift to smile. "We tried."

Marilee sat back. "I'll never forget seeing him lumber in," she whispered. "He looked like a . . . a living corpse."

Natlane laid burning eyes on her face. "You understood him. You talked to him. What was that gibberish?"

"French. I learned it at school and I never thought it would be any use to me. I kicked like mad, but they made me take it. It wasn't a dead language they said. Even if no one speaks a language any more, it isn't dead as long as there is a living literature written in it."

"It's the language they used to speak here in Paris before it was destroyed, isn't it?"

"Yes." Marilee's eyebrows arched, abruptly. "I just thought of something, Nat. There was an old book we read in French class. '*Les Miserables*' it was called. '*The Wretched Ones*.' One place in it there was a description of a network of sewers under the city, abandoned sewers ancient even when that book was written, and the author told how a certain animal-like race of people he called 'beggars' lived in them. Maybe—"

"This room and the passages leading to it are part of those sewers that somehow escaped destruction when Paris was blasted." Natlane was thoughtful. "Could be."

"And maybe some of the people living here escaped destruction, too," Marilee went on. "Maybe . . . maybe that poor man was born here underground and has lived underground all his life without ever seeing the sun except where it peeps in through holes like this—"

"He certainly looked it." Exciting speculation pumped in the Lampman's throat. "Look here, Mary. Suppose there are a lot of those creatures and whoever is back of this knows about them and has formed some sort of alliance with them, for some purpose of his own."

"Which is how we came to have been brought down here. Some of them are morons, like the first one who came in, and a few are very intelligent, like the one in black."

"More likely there are all grades— Yeh. Yeh, the more I think about it, the more I think we've hit on something. Which isn't so nice for us." Natlane inhaled, let the breath trickle slowly out.

Marilee was silent, staring at him.

Natlane smiled, bleakly. "I remember something from school too, Mary. In mythology. About a god named Pluto who was Lord of the Underworld and who wasn't anyone you'd want to have get sore at you."

XIII.

The sun had vanished long ago from the iron-barred window look-

ing out on the Seine. Natlane could barely make out the shape of the chamber, the darker lines of the recessed door. He had sat so long with his back against the wall that his legs were without feeling and a steel band seemed to constrict his chest, but he dared not move lest he jar Marilee's head on his shoulder and awaken her.

But she woke by herself. She opened her eyes, quite suddenly, very wide, and then she shook her shining hair out. "Oh-h-h," she half moaned. "Oh, Natlane—I'm all hollow inside!"

"I'm not exactly overstuffed myself," he grinned. "I ought to be kicked for spoiling all that delicious mush."

"You did the right thing, Nat. It didn't work out, but that wasn't your fault. Oh, I wish there were some way of getting word to the chief!"

"The chief? Van Gooch? Marilee, don't you realize that he's the one who put us in here?"

"Nat! How can you say such a— Oh. Oh."

"But what else could you think?"

"I thought perhaps it was someone who . . . who could use you and your experiments to overthrow Van Gooch. He's terribly afraid of being overthrown."

"I gathered as much," said Natlane grimly. "I thought at first that he was blocking me out of some mistaken idea of trying to help me. However—that wouldn't include a cozy little place like this." He put his hands to his head. "I've

got to figure it out, Marilee. Too many things have happened too quickly. Yet they must all connect, some way." He looked down at the girl, so trusting, so strong. It was his fault she was here—she had tried to warn him.

"Nat! The door!"

It was opening. He couldn't see that it was, but he could hear the low, rasping squeal of its hinges.

Queer that no light came in. Maybe the denizens of the underground needed no light, had adapted to sight in almost complete darkness. But why was it taking so long for that door to open? Why was it opening so slowly?

So cautiously?

Natlane pushed himself up, pulled the girl up with him. She'd caught the contagion of his sudden tension. She came up silently. She seemed hardly to be breathing as they stood rigid, staring into the dark.

There was movement within it. There was the whisper of a foot on stone. A darkening of the darkness, a presence. The hinges still scraped. The door thudded very quietly into its frame.

"Natlane."

The whisper had been so faint, he wasn't sure he'd really heard it. But it came again, a little louder. "Tovarish Natlane."

Breath he didn't know he'd been holding seeped from Nat's nostrils. "Gregor! Gregor, by all that's holy!"

"SAAA. Hush, comrade. We must not be overheard. I took care of two who tried to stop me, but

there are others. Many, I think. Come. Come quickly but very quietly—"

XIV.

Ivan Plovitch finished his address to the Sociological Control Board and resumed his seat. For an instant his thoughts fled to the events of last night, his overhearing the old-French voices on the plain, the decision to which he had come, the man and the girl Gregor had brought to the stratoyacht under cover of the night. The girl might prove a problem.

Time for that later. Ivan brought his attention back to the group who were about to pronounce judgment on his proposal. Around the long table every human color, every known racial type was represented. Wholly different were the countenances he scanned, yet oddly alike in the masklike lack of expression cultivated by those who have power and whose faces are habitually scrutinized for some forehint of how they intend to wield it.

Plovitch could read those faces no better than anyone else but some sixth sense developed through years of just such situations as this told him he had made a good impression. Now that he held trumps, it no longer mattered so tremendously whether he did or not; and so he had spoken simply and earnestly and effectively. The scales, however, were still only teeteringly balanced in his favor, and Rudolf van Gooch, apparently



sunk in sleep at the foot of the table, was yet to have his say.

And so Ivan knew he had failed.

At the head of the table, Chiang Lee, Chairman of the Board, turned from a low interchange

with Thomas Carmen of Canberra. "We should like to hear from our chief of staff."

The ancient seemed not to hear. He seemed to be listening, he was listening, to a whisper from the high back of his chair, an in-

comprehensible sibilance to anyone save him.

It must be an extremely important message to justify his listening to it at the expense of his superiors. It was not only important, Ivan decided, but unwelcome. The seamed lids had opened and exposed a flare of wrath.

Only for an instant. The old, tired eyes were once more secret.

"Chief van Gooch," Chiang said, a bit sharply, "we are waiting."

"You must forgive me for my seeming inattention, gentlemen." Van Gooch's voice was a little blurred, as of one whose mind is occupied with some intricate problem. "I was, as a matter of fact, making up my mind as to the Commissar's proposal after listening to his splendid exposition." Clever. His mind had been made up to opposition yesterday but his arguments would be all the more effective by this pretense to judicial neutrality. "Before he spoke, I was determined to recommend that you reject his suggestion, flatly. He spoke crisply now, sure of himself. "He has convinced me I was wrong."

Ivan's heart pounded and there was a ringing in his ears. He scarcely was aware of the brief and meaningless discussion, the vote that sealed his triumph. The meeting adjourned, the Board members filed out and he was alone with Van Gooch.

"We might as well issue the basic order at once," the latter said. "You can work out the details later. Let me see," he mused,

"how shall I phrase it? Oh, yes." He'd pressed a button and was dictating. "'From Chief of Staff, Peace Dome. To all personnel. Message begins: By direction of the Sociological Control Board, Article Twenty-four of the contract between the Board and the Psychoneers' Union is abrogated, effective at once. A Division of Culture is hereby created. Ivan Alexis Plovitch is hereby nominated Staffman and Director of the Division of Culture. Pending definitive regulations to be promulgated by Director Plovitch, all non-functional activities of the personnel are directed to be suspended. The Recreation House is hereby closed, all wings, and will be reopened only when and if Director Plovitch so instructs. Signed, Rudolf van Gooch, Chief of Staff. Message ends.' That about covers it, Plovitch, does it not?"

"Completely. Almost too completely, for the first notice of the new arrangement. Should we not take this up with the union's officers first, explain—?"

"Leave the union to me." Van Gooch snapped, then his tone was low again. "What I had in mind was the terms of the order itself. Do you think, perhaps, that I should not order the immediate suspension of the research projects?"

"Of course not." Ivan was panicked for an instant. "That's the very crux of the whole matter."

"Yes," Van Gooch murmured. "I imagine you are right. Very

well. I shall have quarters assigned you in the Staff House, and an office. When you have prepared your definitive plan, please bring it to me for approval. You may go now, Director Plovitch." The wrinkled lids closed.

There is one facet of my plan, Ivan Plovitch thought, that Rudolf van Gooch will not get the chance to approve. He grinned at Gregor, on guard outside the stratosucht. "Any visitors?"

"No *ponya*. No one suspects."

"Ahhh. Very good. Very, very good."

The interior was dark until Ivan closed the entrance hatch, then it lit up again. Marilee seemed to be asleep in a bunk, still not quite recovered from her ordeal, but Natlane was awake. "Well, Ivan," he asked, "did they drop you gently?"

Plovitch twirled his mustache. "They did not drop me at all, Comrade Natlane. You see before you the Director of the Division of Culture of the Peace Dome."

"What?" Natlane jumped up. "Don't tell me the Board overruled Van Gooch!"

"They did no such thing. Chief van Gooch supported my proposal. He is at this very instant promulgating an order suspending all leisure hour activities, including all research projects."

Natlane's face went white. "Then—it's true. It was Van Gooch who had us abducted. It is Van Gooch who has that army of horrors hidden away in the sewers."

He sank down in a chair, put his head in his hands.

"Were you so—attached to him?" asked Ivan.

"No!" snapped Natlane instantly. "Not to him, personally. But to the Dome, and the ideal of the Dome, and the Challenge. Why did he do it? Why? Why? There has never been an objection to improvements in the Dome's operation. Why should there be one to a series of experiments that can achieve the purpose for which the Dome, magnificent as it is, is only a stopgap?"

"Perhaps Chief van Gooch is jealous of his power," Ivan remarked quietly.

"Yes . . . yes; I see," murmured Natlane. "I see a lot I never saw before, Ivan—that project of mine has got to go on! It's the only answer!"

"You are probably right," Plovitch smiled. "I've often been intrigued with the hidden, personal motives that sometimes decide momentous issues. But, comrade, you do not have to be stopped if you do not want to."

Natlane took a backward step, stiffened. "I don't—? Oh. You mean that since it's your say, you can— No, Ivan. It's swell of you, but I can't let you stick your neck out by making an exception in my case. Both the Board and the union would be down on you with all the sting of a cyclotron. Nothing doing."

"Neither the union nor the Board, and certainly not Van Gooch, will know. What I pro-

pose is to provide you with a laboratory hidden deep in the Balkal Mountains. A laboratory altogether your own, *totovishk*, and all the supplies you require so that you can complete this great project of yours without let or hindrance."

The Lampman stared. "Why? You've succeeded in stopping all research projects here in Paris, why are you so eager to make it possible for me to continue mine?"

Plovitch shrugged. "Perhaps because I like you, comrade. Perhaps because I realize that if you succeed in establishing the rule of reason on Earth, the more abundant life must inevitably follow. You accept of course?"

Natlane spread his hands. "Why shouldn't I acc—?"

"No, Nat!" Marilee cried from her bunk, and sprang out of it. "No. You can't do it." Her voice was imperative. "This fight isn't between just you and Van Gooch any more. There's going to be a battle between the union and the Board over this order, as you'd know if you'd stopped to think, and all on account of you. You got the rest of the Peacemen into this scrap whether they know it or not. You can't run away and let them fight it out while you're having a good time doing exactly what you want to do. That would be yellow, Nat. It would be a rotten, filthy stunt."

Natlane rubbed the back of his neck with his closed fist. "Geminy! I didn't think it through. You're right, Mary. You're a hundred

percent right." He looked at Plovitch. "Thanks, Ivan. Thanks a lot for your offer but I'm afraid I have to stay here and tangle horns with you and your chief."

The Irkutskan's mouth opened, closed again. He turned away without a word, went to the entrance to the stratoyacht. The lights went out as he opened the hatch, but sunlight struck in. "Gregor," he called.

"Yes, *ponya*."

"Listen closely, Gregor Gregorieff. I shall not be living here, but you will, and I have just one instruction for you. Our visitors are not to be permitted to leave this stratoyacht. No one is to know they are here and they are to be permitted no communication with anyone other than you or me. Understand?"

"Yes, *ponya*," the giant Cossack rumbled. "I understand and obey."

XV.

Every Peaceman—and woman—not on shift or too far from Paris to return in the two hours since the promulgation of the order abrogating Article Twenty-four was in Union Hall. The gabble of angry voices was a sea of sound that subsided as Olejensen, pale and drawn, strode to the front of the rostrum.

"I call this special meeting to order." A humorless smile pulled at his mouth. "Or should I say that this meeting calls me to order, since it has convened without call?"

At any rate, it is now formally open. Secretary Paulkruger will read the—"

"Blast the minutes!" someone yelled from the floor. "Get down to business."

"—the General Order," Olejensen went on imperturbably, "that has brought us together. Brother Paulkruger."

The burly Capetowner was already beside him, glowering, livid. "From Chief of Staff Peace Doune," he began. "To all—"

"Skip it!" the same rancous voice broke in. "We know what it says. What we're here to find out is what you're going to do about it."

Paulkruger looked down, a rock-like figure of a man, spraddle-legged, smoldering with dark rage. "You tell me, psychoneers. What are we going to do? Accept this order and be really the slaves that snooping schemer from Irkutsk called us? Or fight?"

A low rumble as of a distant storm gathered in a thousand throats—"Out of order, brother Secretary!" Olejensen was white about the lips but his ringing cry stemmed the imminent eruption. "No motion has been put and there has been no discussion." He faced the assemblage. "I heg you to be calm, to consider this question in all its aspects. No one resents this outrageous ukase more than I, but let us not be too hasty in choosing our method of manifesting this resentment. Let us remember we have a higher duty than to ourselves alone. Let us not forget that the peoples of the world

look to us to maintain peace among them. We must not, we dare not, betray that trust."

He paused and the crowd was hushed, and then a round-faced Sitkan was heard saying, "He's right. We can't quit our Lamps." A head nodded here, and there someone said, "Yeh. How can we let the folks at home down?"

Near the rear there was a flurry and Robarmstrong was pushing into the central aisle. "Brother Prrresident." He strode long-legged toward the platform, lantern jaws working. "Brrrother Prrresident and Brrrethren! There's anither issue here besides the mere liftin' o' oor rrecreational preevileges! As ye know by now, Brother Natlane is not among us. Ye also know that it was the denial o' his orderin' rights in the lab which brought this whole thing about. Na then: Chief van Gooch has retracted his order forbiddin' Brother Natlane to use his time as he sees fit. But Brother Natlane is not here to take advantage o' the chief's generosity! Further—two o' Natlane's closest friends—the verra ones who would be most certain to know his affairs—two o' his frriends, I say, are missin' too! They are Brothers Jocarter and Stanrod."

A quickly-quelled buzz of surprise and anger filled the hall momentarily, and Robarmstrong went on: "These things have a mysterious smell to them, and one not to my liking. I feel the rresponsibility o' my Lamp as much as anyone; but I cannot and

will not work under a series of circumstances that are evil and undemocratic!"

"STRIKE!" The roar drowned him out. "Strike!" It became a thunderous chant. "Strike." "Strike." "Strike," that shook the structure with its rhythmic, roaring cadence—

And cut off in thunderous silences. From the shadows at the back of the platform, thin and frail and expressionless, there came into view—

Rudolf van Gooch!

At the front of the stage he inclined his hairless skull of a head to Otejensen and in the astounded hush his low words were distinctly heard by those farthest from him. "May I have the privilege of the floor, Mr. President?"

The chairman's lips moved soundlessly, then made words. "Do I hear any objection to granting our unexpected visitor the privilege of the floor?" The silence was unbroken. "Hearing none, I ask your courteous attention to Chief of Staff van Gooch who, I take it, will attempt to justify the order we have met to protest."

"Thank you." The chief's veiled eyes drifted over the hushed throng, and tension tightened. A smile drifted over his fleshless mask; and then he spoke, in a half whisper that was clearly audible everywhere. "Your president is mistaken. I do not intend to justify, nor even to attempt to explain the order. However, I seem to have arrived just in time to see Lampman Robarmstrong ade-

quately answered. In the midst of this rather deplorable disorder, I believe I saw Lampman Ganehr, in the best parliamentary fashion, trying to get the floor." The thin lips formed a faint, expectant smile, and all eyes turned to the squirming little Delhian.

"Thank you," said Ganehr, rising. "Must admit to a certain reluctance in divulging certain information to this body, but—" The struggle between defiance and timidity within him was painfully evident, "Lest there be doubt in the mind of any brother here, my sympathies remain against the order in question and the unexplained disappearance of Brother Natlane. Must inform you, however, regarding the other two Lampmen, that I am most recently in receipt of ethercode message from the City Council of Nyork, who inform me that Jocarter and Stanrod reside, alive and well, in protective custody in Nyork, reasons not stated. Message checked and validity cannot be questioned." He sat down.

"So you see, gentlemen," Van Gooch said in his penetrating whisper, "Your concern regarding those missing men is unwarranted."

A wave of vacillation began to grow; then Paulkruger spoke up harshly. "Where is Natlane?"

The name was echoed and re-echoed by the psychoneers. It became a roar. Van Gooch, sighing slightly, held up his hands for silence. He got it. "I know nothing of Natlane. In regard to the order, I have come here to remind you

that in promulgating it, I complied with the instructions of the Board who are as much my superiors as I am yours. I had no choice but to obey them, you have none but to obey me. The order is in effect and will remain in effect unless and until the Sociological Control Board rescinds it."

The sheer audacity of this statement prolonged the silence a moment longer and before the moment ended the ancient was speaking again. "If you have any idea that by deserting your posts you can compel such a recession, I advise you to look to the rear."

Heads, torsos, turning, made the sound of a sudden windgust in the foliage of a Pleasure Park.

The wide, high portals in the rear were sliding open. Between them appeared two black figures, black-cloaked, black-hooded. They filed slowly in and behind each was a bulky, uncouth form in moldering garments, dirt-colored, with ineptly molded visages of dirt-colored, pallid flesh. The leaders went to the right and left and the ones behind followed, and behind these were another two, and behind them another.

The two lines grew, shambling along the walls, ungainly limbed, clumsy. The portals slid shut again. The black-masked leaders reached the corners, halted, turned to face inward and the others imitated them. All across the rear of Union Hall they stood spaced wide apart so that only twenty in all confronted the thousand and more

Peacemen, but the twenty held the thousand cowed.

And not wholly by threat of arms, though in each dour right hand was clutched a bell-mouthed device that obviously was a weapon of some sort. Their appearance was enough, of things human-form yet not wholly human, of blind and voiceless corpses denied the quiet of the grave.

Nor was there any threat in the low, sweet voice of the ancient necromancer who had evoked them. "These are only a few of many." Merely a statement, and if there was any emotion it was only regret. "The others are in the Peace Dome, waiting to take over every station when I give the word."

"To take over nothin'," Rob-armstrong found hoarse voice. "Ye canna bluff us, Van Gooch. No one can take over the Lamps an' the Controls weethout yearrs o' ttrainin'."

"Quite right," the chief agreed. "These people have had years of training. Long ago I anticipated just such a situation as this and prepared to meet it."

Paulkruger's hands opened, falling to his side, as if something spilled from them. Someone behind Robarmstrong muttered, "He's licked us," but the dour Glaswegian stood his ground. "Trained this strange people may be," he said flatly, "boot they canna step in and effeiciently opperrate the Dome. Long practicee is needed for that, an' you canna tell me there is any

place such practice can be had save in the Dome itself."

"No." There will be blundering for a time but in some manner the Dome will function. To gain your ends, you were willing to shut it down altogether. So that never again will irresponsible agitators like you try to enforce unconscionable demands with a threat of strike, I am willing to endure a period of maladjustment, and the Board will support me."

Robarmstrong knew he was beaten, but he made a final effort. "The Boord, mayhap, but hoo about the people o' the Cities, in turra the Boord's masters? If we take oor cause to them, weel they not turn the Boord out, an' you with 'em?"

The ancient looked down at him, countenance masked and unrevealing. "What will you tell the Cities? That because the SCB wishes to free you from dull routine, because the Board wishes to broaden your horizons, to teach you to live as men, you threaten to bring back the horrors of war to a world that has almost forgotten what war means? You are welcome to try." His quiet gaze lifted, moved slowly along the ranks of the seated Peacemen. "And if the rest of you are so blindly deceived by this demagogue and his crew as to endanger at their behest the great enterprise to which you have dedicated your lives, you are no longer the men and women with whom I have long been so proud to work."

Abruptly he lost his coldness, his

proud poise, seemed feeble and shrunken and very weary. "I came here to defy you. I find it is not in me to do more than appeal to your loyalty—"

He choked on what sounded like a sob and turned away, and broken by the weight of his years and failure at the close of a long and honored career, stumbled across the platform. A murmur of sympathy ran through the crowd as the shadows took him.

Olejensen put a hand on the lectern to steady himself, cleared his throat. "I will entertain a motion that we accept the General Order abrogating Article Twenty—"

"Hold it, Ole!" Paulkruger broke in. "I've got something to say." He'd recovered himself, was a looming dark figure above the somber assemblage. "Maybe I'm a demagogue, fellows. Maybe I have no sense of loyalty to the feeble old man who's just touched your hearts with his plea. I don't know. All I know is that I see a line of thugs lined up across the back of this hall and that I've been told there are hordes of them trained to take our places in the Dome, and I'm blasted if I think that shows any loyalty on his part to you and me."

"You're out of ord—"

"Out of order be damned, Olejensen! There's something here more important than your rules of parliamentary procedure. And unless I'm crazy, there's something more behind this than whether we learn to appreciate music or not."

I don't want to learn music or paint beautiful pictures or make sweet smells. I want to be left alone to do my job the best way I can, and I'm ready to fight for my right to do so."

The crowd-sounds changed character. They were still a mutter, but not of sympathy.

"If you pass that motion," Paulkruger twisted back to them, "if you put it on the books, you won't be accepting the abrogation of a single clause of our contract, you'll be scrapping the whole of it. You'll be giving the Board the right to wipe out any and all of it any time they get a notion to. Which is all right with me, if that's the way you want it. It's all right with me, if you want to knuckle under to this army of . . . of zombies Van Gooch has produced out of thin air. But don't tell me you're doing it because you're loyal to Van Gooch or to the Dome. You're doing it for one reason only. Because you're afraid. Because you're a bunch of yellow-bellied, fish-livered, anivelling cowards."

He turned again to Olejensen. "Mr. President! I'm making a motion. I move that unless the General Order pretending to abrogate Article Twenty-four is rescinded by the end of the shift now on duty, the members of this body take over the operation of the Dome and the management of Recreation House, with all its wings, and continue to operate the whole until the order is rescinded."

"SECOND!" Not one member



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The SHADOW

AT ALL NEWSSTANDS

but seemingly every one in the hall yelled it, and everyone in the hall was up on his feet, was roaring "Aye!" without waiting for the question to be put.

"Passed!" Paulkruger shouted and leaped from the rostrum to the aisle below, and his bellow could be heard above the roar that greeted him. "Now let's chase these zombies back to the Hades they came from."

He forged through the shouting crowd and the crowd fell in behind him, and surged over crashing chairs, over splintering seats in a maddened charge on the pallid figures lined across the hall's rear.

Perhaps someone barked an order, perhaps not, but the strange weapons came up in unison, jetted a black spray to meet the rush. Before the leaders reached it, the spray was a stygian, opaque cloud at whose fringes men shouted and tried to halt and were crowded into it by those behind.

At the edge of the cloud there were screams and within the black cloud was awful silence, but mob-rush cannot be halted or reversed in an instant.

When the terrible vapors began to dissipate and order emerged from chaos, twenty corpse-like forms were found suffocated to actual death beneath a broken-boned, stunned pile of Peacemen. Eighteen. The two leaders in black were nowhere to be found.

Niyaskina, one of the very few who had escaped that debacle without so much as a bruise or a scratch,

pointed out an ironical circumstance. "Black gas not lethal," he smiled blandly. "Injuries and deaths result only of unthinking rage followed by blind panic."

Nevertheless, though the Peace Dome's four portals were at once picketed by sullen-eyed psycho-neers, no attempt was made to force an entrance and take over operation. Men in black robes, black-hooded and masked, escorted out those who'd been onshift during the meeting and then clotted in the portals, and in their black-gloved hands were thick-barreled, bell-mouthed gas guns.

XVI.

A tension spread over Nyork. It was nothing measurable. It took itself out in a sharp tone of voice here, a hurried step there, and in extra, unaccustomed teardrops. It showed in a lack of courtesy among the people, a slight decrease in anyone's patience with anything at all. Babies cried more—

It communicated itself to Stan-rod. He blamed it on his enforced confinement with Jocarter, who had grown increasingly sullen, and sat now on the edge of his bed at The Work's headquarters.

"When is this comic opera going to end?" growled Jo.

"When you end it," granted Stan. He began pacing up and down the luxurious little room. "And I wish you'd make it soon. I want to get back to Paris. Holy chromen!" he said—all but shouted. "I've got the jitters. Something's

making me as jumpy as a goose with a pogo-stick. Haven't felt like this since I was up for my SCB exams."

"I feel all tied up too," said Jocarier. "And I don't wonder. Being cooped up like this because of an ideological impasse isn't calculated to make me break out into songs of joy."

"It's more than that," said Stanrod. "There's something in the air. I'd give my eyeteeth for ten seconds at my Lamp right now. I feel it, and you feel it, and if it's general, that Lamp must look like a spotlight."

Jocarier's answer—if any—was checked by the violent crash of the opening door. "Jocarier! You wanted it—it's here. Your proof." The coldly furious face of Gar Whitney blazed, almost, with a light of its own.

Jocarier looked up sullenly. Stanrod ran to The Work commander. "Who is it?"

"Jersey Exchange, of course." Jersey Exchange was a newer City, product of the "Do-gooders Peace," when whole new Cities were built by exchange populations from various nations. It had been a good idea, for many of the national groups which had built Cities in foreign lands had mingled with the inhabitants, to the ultimate promotion of international understanding; but some had remained intensely provincial. Jersey Exchange was one of these. Recruited originally from Eastern Asia, its inhabitants had absorbed an ancient and poisonous idea of

racial superiority. They had, for generations, by every subtle weapon of ostracization and semantics, kept themselves "pure."

"Jersey Exchange—that's a Federation stronghold!" said Stanrod.

"What Federation?" Jocarier was wide-eyed.

"Is he serious?" asked Gar Whitney.

"I told you he was a babe in the woods," said Stanrod disgustedly. "The story of the Exchange Federation isn't included in the school-books or in the conversation of 'nice' people. They think it's a dangerous myth. Tell him, Gar."

"Jo," said Gar, with forced patience, "Listen carefully, because I'm in a hurry and won't be able to repeat myself. For years now there has been an underground movement among certain of the renegade Exchange Cities to amalgamate. What they're after is world conquest. How they plan to manage that is—anything they can dream up. Whatever it is, it will hit every democratic stronghold in the world at once. They'll mop up the weak ones at leisure. And New York is the strongest of all. So we get it first. We have no allies, in the military sense. Do you begin to see now why we have to have a fleet?"

"Do you see now why I said that The Work is protecting the whole world against war, for the same reason that the Peace Dome is?"

"Fire with fire," said Gar.

"I . . . I don't believe—" said Jo, and stalled. "Show me. Show

me, that's all I asked of you in the first place."

"Come on then," said Gar. "And come a-running."

They tumbled out of the room, into an elevator, down a winding moto-ramp to a gyrcar, and across the teeming, troubled city toward the Catskill base—a huge, underground mobilization place for the secret fleet. Jocarter was silent, lost in the turmoil of his troubled introspection, the crashing of his carefully schooled ideology. Stanrod, too, was silent, on his face the uncharacteristic mask of hatred for a potential enemy about to strike those dear to him. And Gar—a man of granite, now, shouldered with the myriad responsibilities of military leadership.

They never reached the base.

Out of the west hurtled a formation of glittering teardrops.

"Exchangers!"

The mountain before them opened. Directly beneath them was a puff of smoke—no—condensed atmosphere—and in seconds the gyrcar heaved itself, shook.

"One of our super-compressed rifles," said Gar through his teeth. "Radar-directed. Watch."

The teardrops had become great swift shapes. As Jocarter watched, the ship that flanked the leader suddenly disappeared in a blue-white blaze, dazzling in daylight.

"It's . . . it's gone!" said Jocarter, stupidly.

"You'd go, too, if you got conked with one of those babies," said Stan-

rod grimly. "You know what atom fission is?"

"Of course, but . . . but that—"

"That was total atom disruption," said Stanrod. "Guided missiles. They go out in a salvo. Each one has a proximity fuse and radar identification. They won't go for each other; they will go for anything they're aimed at, and hit it, too, even if they have to chase it all over the sky. The nice part about it is that the identifying device makes only one missile go for each target. Perfectly selective. Shell A goes for target 1—unless target 1 is being chased by shell B. Very eff—*Look!*"

Microseconds apart, the rest of the formation disappeared in a succession of blinding flashes.

Gar Whitney chuckled without humor. "That's that."

"Is it, though?" Stanrod pointed.

From the south came three more of the ships. As they flashed above them, one, then another of them were blasted out of the sky.

"The rats. They divided their fleet!"

The third warcraft heeled, brought a nose gun to bear on the emplacement beneath them. A huge, roiling cloud appeared below, and the little gyrcar began to toss and whirl like a fallen leaf. Whitney cursed as he fought the controls.

As they emerged from the turbulence, and regained something like an even keel, they spotted the third Exchange ship, wheeling over the Bay area.



"Get him," prayed Stanrod aloud. "Get him, get him—"

In the clear upper air, it was quite easy for them to see the hatch open in the big craft's belly, and a number of white objects drop out. And just then Stan's prayer was answered. There was a vicious smash of unbearable light, and when they looked again the ship was no more.

Jocarter opened his mouth to speak, but no words came. His jaw hung slack as he saw the bombs, like giant's feet, go marching across the bay and deep into Staten Island.

"Bombs," said Stanrod. "Oh, the scum! Let's go over there, Gar."

Their gyrcar went hurtling over toward the squirming columns of smoke. Gar swung the swift little ship belly-foremost, braking with the vanes, and they dropped down to the scene of disaster. Within a second of smashing the ship, he checked it, and they settled gently, tumbling out before its full weight was on the sod of the Tottenville Park.

Before them stretched crackling devastation. Bent and twisted girders, huge jagged rents in walls, gave testimony to the vast, blind power of the bombs.

"Chemical explosives," said Gar curtly. "Good thing they didn't drop anything high-powered."

"Anyth—" Jo repeated, startled.

"It was only a test," said Stanrod impatiently. "Obviously. They sent those ships over just to see how we'd knock them out. They were trying us on for size."

"Fortunately, we didn't have to bring out any of our big stuff," said Gar.

"You mean we . . . you . . . have more powerful weapons than the ones that knocked those ships out?"

Stan's gaze met Gar's quickly. They both laughed. "New around here, ain't he?" said Stan. "Course we have, son. But plenty."

Jocarter shuddered. "Let's see if we can help anyone."

And five minutes later, Stanrod knew that he had won, knew that Jocarter realized the necessity for The Work.

For Jocarter raised his fist skyward and cursed, mouthing the words, sweat—or tears—wetting his face. "The filthy rats," he said. "The murderers. Oh Stan, Stan—"

That was after an hour of listening for cries and groans, and then clambering over and through the rubble, sweating and straining to lift masonry and wrecked plastic to get at the maimed and trapped. It was a sight of disorder and blood and agony completely alien to the upbringing of a New Yorker of the period. Jocarter said those words, that way, when he found the tattered body of an eight-year-old child.

XVII.

Natlanc and Marilee had seen nothing of Ivan Plovitch for hours, had seen only the walls of his strato-yacht. Gregor Gregorieff had remained outside, sleepless as far as they could determine since no matter when they'd investigated he'd

been just outside the hatch, on the alert.

Abruptly the hatch opened and Ivan was entering, little eyes glittering with repressed excitement. "You must change your mind, Natlane," he began without preamble. "You must come to Irkutsk at once. We would be mad, mad I tell you, not to seize such an opportunity as no men have ever had before."

The Lampman just boggled at him, but Marilee was demanding, "What do you mean, Flovitch. What are you talking about?"

"Don't you understand, Natlane? You plan to take humans and condition them not only against the sheer physical factors that interfere with their following the dictates of pure reason, but also the prejudices, the biases they learn from their parents, from those about them. Isn't that so?"

"Why, yes. But—"

"Among these are the ethical codes, the social awarenesses, the religious precepts that stultify the operation of pure reason. The beings you can create will be absolutely ruthless, unhampered by the absurdities of conscience and hence not to be resisted by individuals so hampered."

"Precisely my notion." Natlane, caught up by the idea that so long had dominated his every waking thought, forgot this man had kept him prisoner for days. "Give me ten years and I'll produce a new race able to impose on the rest of the world's population the rule of reason—"

"Of cold logic, Natlane, and who

will have taught them the criteria of their logic, who will have planned for them the new order they will establish but you and I? They will be masters of the world and we theirs. Their masters and so"—Ivan opened his arms to make an all-embracing gesture—"masters of all the world, our law and our logic the law and the logic of the whole human race."

On Natlane's face was slowly dawning comprehension, but on Marilee's was something of the same horror as had been there in the underground chamber when the sewer-man had lumbered in. "Let them have their little laugh at me," Ivan said, "back there in Irkutsk. Let them strip me of the petty title they've given me, the silly little powers. I've squeezed that orange dry—"

The Nyork Lamp was a bloody scarlet, the Kobe globe crimson. All along the Peace Dome's shadowed gallery the Lamps were shifting to the red. Death-countenanced, uncouth men mouthed obscenities as they thumbed frantic buttons and on the vast floor others issued orders and revoked them in a vaster confusion. Under the gallery the arcing of switches thrown and pulled and thrown again made a flickering blue glow like that of heat-lightning on a midsummer's night, their sparking a crepitation like that of a pine forest in flames.

Only in the aerie that hung like an inverted turret from the roof of the Dome was there quiet, in the shining room where an old man sat

on his lonesome throne and listened to whispering voices. "Berlin calling. Berlin. A horde of single-manned aerbats darkens the sky here, circling above city. They appear to be armed."

"From Rio. Rio. Rio in panic as report gains credence an ultimatum has been received from Lima."

"Canberra. Canberra reporting. Canberra City Parliament is in secret session debating action to be taken on complaints Chungking citizens have set up colony in Wastelands within City's outer borders."

A buzz threaded the whispering voices. Rudolf van Gooch's transparent hand moved on the arm of his chair and the voices cut off. His bony fingers moved again. "Yes?"

"The Sociological Control Board requests the chief's attendance on a special session, convening immediately."

"Very well. I shall attend."

"Think man," Ivan Plovitch urged. "Think of the power that is ours for the taking."

"The power," Natlane repeated. Then, musingly, "That's what you want, isn't it? Power over the lives, the destinies, of your fellow men. Not their good, but power over them."

"Both, comrade. For one, the other is necessary. Man being what he is, it is impossible to lead him to the attainment of what is best for him. One must have the power to drive him to it."

The Lampman nodded, "Yes." He spoke slowly, thinking aloud.

"Yes, you are quite honest. You really believe that is why you want power and maybe at first it was altogether true. But once having had a little taste of power you wanted more, and more, the desire growing within you, taking hold of you like a drug. The lust for power for its own sake. The urge to make of yourself a demigod."

"No, Natlane. No!"

"He saw it clearly. Rudolf van Gooch. You don't know what has happened to you. You start out by seeking power as a means to some socially desirable end, but more and more personal power becomes your end in itself, becomes an obsession that first destroys those whose good you started out to accomplish and ultimately destroys you also—"

Chiang Lee spread ascetic hands on top of the long council table and said, drearily, "You should have referred to us the union's refusal to accept, have awaited our decision on policy before taking any action. By proceeding as you have you have exceeded your authority."

Rudolf van Gooch permitted the shadow of a smile to touch his sore lips. "As chief of staff I have the authority to use my best judgment in administering the Dome. My judgment is that we cannot permit the workers to defy us, no matter what the issue. I foresaw that the attempt would be made sooner or later and I chose to force it to be made at the strategic moment when I was prepared to cope with it to our best advantage."

"With the result that the world is once more on the brink of war."

"All the long repressed animosities, the stifling of natural antagonisms, bubbling to the surface as our pressure is relaxed. Yes. But I am still able to exert a sufficient degree of pressure to forestall the explosion for a few days more at least. Before that the Psychoneers' Union will have surrendered."

"And if they have not?" Carmen of Canberra inquired.

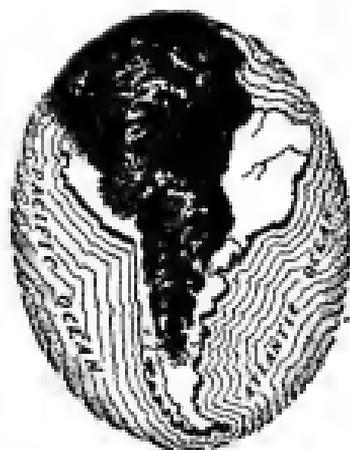
"If they do not, it is better we fail than that we permit our employees to dictate to us."

A babble of excited voices broke out, was quelled by the chairman's gesture. "The Board has already discussed the question, Chief van Gooch, and that is not our attitude. We have decided that the order in question is not important enough to endanger the peace of the world for, and we have voted to repeal it. You will so inform the members of the union and you will make arrangements to have them resume their stations at once."

The old man's countenance seemed to grow grayer, more like an inanimate mask. "If I do so, my authority over them will be so impaired it will be impossible for me to properly administer the Dome."

It was Chiang's turn to smile bleakly. "We have also considered that angle. Much as we regret it, Chief van Gooch, we have decided to accept your resignation. I presume that you proffer it?"

"Your presumption is not based on fact." The ancient form straightened, armed itself with a



MYSTERY LAND OF PATAGONIA

—where days and nights
were distorted by nature
—and by terror . . .

It started with a great, blinding explosion and a lake that disappeared—and a desperate man trying to get to Doc Savage. Then there was the fat man from The Hague—and the man who had been tortured.

Doc and the boys find rough, exciting going in THE EXPLODING LAKE, in the September issue of

DOC SAVAGE

AT ALL NEWSSTANDS

pathetic sort of dignity. "I shall not give that satisfaction to those of you who have long desired to rid themselves of me and seize this opportunity to do so."

Again the babble of excited voices, again Chiang's gesture to silence. "None of us have wished, or planned, to supplant you, but your belief that we have is another argument for your retirement. If you refuse to resign, you leave us no alternative but to remove you."

"Again you are mistaken." Van Gooch's lids opened wide and unveiled the fierce dark flames of his eyes. "You have no such alternative. You no longer have the power to remove me."

He must, unobserved, have given some signal, for in each of the four walls of the Board Room a slit opened and widened and through each aperture there filed in a half-dozen of the corpse-visaged men of the sewers, each group with its black robed and hooded leader. "I foresaw this crisis also," Van Gooch's low, sweet voice murmured, "and this crisis also I have forced at a moment of my own choosing."

There was a long, vibrant hush, and then Rudolf van Gooch was speaking again. "You will recall that before I became chief of staff, I was entrusted with the confiscation of the deadliest of the weapons used in the War of the Cities. Now they shall be used to save humanity from itself. You will, gentlemen, be escorted to your stratoyachts and permitted to depart for your respective Cities. If any of you refuse

to leave, or if you attempt to return, I shall regretfully be compelled to order the use of those weapons against you."

XVIII.

Ivan Flovitch slid his arm around Natlane's shoulder. "You are right, comrade, but it is Van Gooch who is power-mad. At this very moment he is engineering a *coup d'etat* that places the Dome in his hands, and he plans to use its machinery to gain mastery over the world."

The Lampman's jaw dropped and he stared, and then he smacked the back of a half curled fist into a curled palm. "That's it! That's what he was driving at. He practically told me that he was going to pull that. It will work, too. He can blue all of humanity, sap initiative, rob them of the will to oppose him."

"Of course, comrade. All of humanity *except our new race!* Except the men and women you will condition against the Dome's Neural Currents. That's why this is our big opportunity, *towerish*. While Van Gooch consolidates his powers we shall secretly build ours. While he is busy with establishing his dictatorship, we shall be preparing to wrest it from him, and when he has built his empire we shall make it ours. Think of that, Natlane. In ten years we can be masters of the world."

"Masters of the world," Natlane echoed. "Masters—yes. It can be done."

"The devil taketh Him up into

an exceeding high mountain" Marilee murmured, "and show-eth Him all the kingdoms of the world and the glory of them."

Plovitch's arm tightened on Natlane's shoulder. "'The kingdoms and the glory', comrade. Ours." He was a little breathless. "I have it all planned. I will say I have sent the stratoyacht back to Irkutsk, having no use for it here. You, of course, will be aboard when it goes, and Gregor will have his instructions. You should leave at once. Look here. Gregor can reach your quarters unobserved, and I can, of course, admit him to the Laboratory Wing since it is now in my charge. What do you need to take along with you to the Baikals?"

"Nothing," Natlane said. "I need nothing to take along to the Baikals because I am not going to the Baikals."

Ivan Plovitch looked puzzled.

"Nat—you have some better place in mind."

"No," Natlane's dark face was twisted with conflict.

"Hah. You reject me—me, Ivan Plovitch, Commissar of Cultural Welfare! I, who saved you from the jaws of death, who have treated you as an honored guest, who have held out to you the keys to immortality and omnipotence; I who—"

"Shut up," said Natlane very clearly. Plovitch's eyes popped. "I'm trying to think."

"Very well," said the Irkutskan pompously. "I have asked you as a friend. Now, I shall tell you. I

shall order you. I shall control you, purely through the superiority of my own, realized, cultural ego, so that you may see for yourself the forces that you may develop in yourself and in humanity. Gregor! The manacles!"

The huge, bearded head popped in the door. "Yes *panya*." It seemed as if he nodded once, violently, and then pitched forward on his face, landing with a crash between Marilee and a purple Ivan Plovitch.

Natlane stared at the massive, unconscious bulk, and then at the door, which framed the roly-poly, smiling figure of—Ganehru.

"Ganny!"

Plovitch uttered an inarticulate snarl, and, surprisingly fast for his bulk, leaped for the door. Ganehru stepped back and up one rung of the companion ladder, to equalize his height with Plovitch's. His pudgy arm flashed up and down again, and without a sound the commissar crumpled at his feet, one great unsightly mass of unconsciousness.

Ganehru grinned. "Practical demonstration; aesthetic to an aesthetic in one easy lesson."

"Am I ever glad to see you," said Natlane fervently. "Who's that with you—Stan! Why, you old—and Jocarter!"

"Back from the wars" said Stan-rod, a quirk to his lips. "Hiya, horse. Whatcha been up to?"

"Living in sewers and stuff. What's this about wars, and how did you find me?"

"We just got back. It's a long story. Ganeshru, here, who seems to know everything, overheard a couple of zombies . . . wait'll you see those babies!"

"I have," said Natlane, and Marilee shuddered.

"He heard 'em gossiping in that gibberish they talk. Seems a couple of them had been knocked off by old bush-face here, and they had a pretty shrewd idea that you were stashed away here. As soon as Ganny saw us he proposed getting you out of the files and starting you to circulating again. Things is a-poppin' out there, but good."

"How on earth did he fold up these two fat-headed *zubrovka* tanks?"

"Demonstration value of my own development of science of the ancients," beamed Ganeshru. "I term the device a 'dura-dorsa-digital desensitizer.' Having devised just before the recent cataclysmic edict closing the Laboratory Wing, this particular adaptation of the historical weapon of the nineteenth century, I seized this short period of relaxation from picket duty to test same. Found it also highly effective on aforementioned gossiping Frenchmen, both for control of their personalities and for removal of information."

"Good boy, Ganeshru! A nice job—and, I may say, final proof of the value of individual scientific research. What, by the way, is a dura-digital desensitizer?"

"Here." Smiling, the Dethian drew from his pocket a small dural casting—four contiguous rings set

in a massive little hand-grip. "Old books call device variously 'equalizer,' 'metal Mickey,' and 'brass knuckles.'"

"Yeh," Natlane grinned. "Yeh, I get it." He grasped Ganeshru's hand, pulled himself out of the bunk. "What's cooking out there? What's all this Plovitch was spaffing about Van Gooch pulling a coup or something? No, Ganny, not you. You're a swell little guy, but I want to get the story in less than a hundred thousand words. Let Stanrod tell me."

Stanrod told the events of the last astounding week in a few pithy and bitter sentences. "Just before the Babu sprang the news he'd found you," he ended, "we saw the members of the Board paraded to their stratoyachts by the chief's gorillas." He laughed, curtly. "The whole mess is serious, but those black robes and hoods they were wearing are strictly comic relief. If Van Gooch thinks we're a bunch of twentieth century dumbbells to be scared by mummery—"

"Hold it," Natlane broke in. "Hold everything. He knows we're not, and the last thing he has is a sense of humor. He must have some good reason for dressing them up that way."

"I don't see what—"

"Natlane!" exclaimed Marilee, who'd been listening intently. "The three who abducted us wore them. I caught a glimpse of them just before the black gas hit us. And didn't Paulkruger just say that the two masked men in the union hall escaped?"

"Yes, but—" The Lampman checked. "Uh-uh. I think I see what you're driving at."

"They were inside the cloud, but it didn't affect them—"

"Exactly! Good girl! Oh, good girl!" Natlane twisted to Paulkruger. "Listen, Paul. We may have a chance to lick him yet. Listen to me—"

XIX.

All outer illumination had been extinguished at Van Gooch's orders, so that the sullen pickets, clustered fifty meters from each of the Dome's four portals, were a clump of formless, muttering shadows huddled beneath its towering shadow mountain. There was light, however, just within the wide entrances, sufficient to silhouette the stygian figures that guarded them, each carefully keeping his gas gun in sight to remind the psychoneers how futile it would be for them to meditate an attack.

Rudolf van Gooch's arsenal held other lethal weapons, but these had proved sufficient to cow the locked-out Peacemen and he had use for them all when they should finally admit defeat, did not wish them injured or killed.

There were half a dozen guards at each portal and along the Dome's walls others patrolled against the off-chance of sabotage. One of these abruptly stiffened as a low cry came to his ears, out of the alley between the Refectory and the Laboratory Wing.

Incoherent at first, it took on

significance. "*A moi. Secours—*" and choked off.

The cry for help had been in French, must have come from one of the sewer-men. How he'd come to be in the alley was a puzzle, but he must be rescued first, then questioned. The guard darted across the Plaza and into the black passage—was tripped by a wire across its mouth.

He plunged headlong, hit the paving, was smothered under human weight. A fist pounded the base of his skull, blanked him out.

The watcher patrolling the beat to the East had noticed nothing. The one to the West, however, had glimpsed the sudden flitting of his sidekick to the alley, had heard muffled sounds within it. He hurried there, halted as he saw a black form emerge and come to meet him.

He waited for the other to come close. "*Pourquoi—?*" That was all he got out before a gas gun butt thudded on the point of his jaw and he lost all further interest in the proceedings.

A second shadow dashed from the alley mouth. There was a swift rustle of black fabric. By the time a third guard, having seen enough of this to be curious but not quite enough to be really alarmed, hurried along the Dome wall to investigate, two masked and cloaked figures ran to meet him.

He realized all was not well, got off a jet of gas before they reached him, but they plunged right through it, their stolen masks saving them from its effects. The third of Van Gooch's minions was stunned and

disrobed, and this little tussle had occurred so close to the wall it was unobserved.

The fourth guard met his neighbor at the juncture of their respective beats, and oblivion in almost the same instant. A fifth and a sixth as easily.

Perhaps twenty minutes after this stealthy series of incidents, the sergeant of the watch at the North portal, the one nearest the Plaza's buildings, observed that the pickets were edging more and more closely to the deadline they'd been warned not to cross. "*Defendu!*" he barked. "*Eet ees not permeet!*" Instead of retreating in panicky realization of trespass, as they always had, the crowd surged nearer. "Get back! Get back, zere!"

The dark mass was over the line. The sergeant snapped an order. His gas gun and his men's came up, vomited their charges. He blinked into the black cloud. It required one's eyes a second to adjust to the change, blinked again as he saw shadows in the cloud, not fallen but plunging through it, six shadows and one was leaping for him, its arm flailing up, pounding down on his skull—and Jocarter had never believed in violence!

"That's that," Natlane granted, and looked for the others. He found Paulkruger, burly body unmistakable even in its grotesque trappings; Haitassie, tall and spare. The three others were each straightening up from a fallen foe and the gas cloud was still about them, concealing them from anyone unprovided with the masks that not only protected

one from the gas but gave one sight in it. "O.K., gang. Shake it up."

Natlane bent again, heaved up the man he'd accounted for, stepped through the cloud and yielded the limp body to waiting, eager hands, hurried back to the portal. His companions joined him. "Take it easy, fellows," he muttered. "It would be just too bad if something slipped now. Take it easy and slouch the way you saw the guards doing, while we see how the land lies."

The interior of the Dome was a turmoil of confusion, its ordered bustle a chaos now, but it was the effort to cope with their unfamiliar tasks that agitated its occupants, not any suspicion that all was not well at the North gate. The corpse-faced switchmen nearby, the current dispatchers, were far too occupied to have noticed the little flurry of activity here.

Even if one happened to glance this way now, he would see only six black-swathed figures indistinguishable from those whom they had replaced. The darkness blanketing the open doorway would from any distance appear to be merely the night.

The cloud was already thinning a little. A hand touched the sleeve of Natlane's cloak. "Have yeh noted, lad," Robarmstrong's voice murmured, "the row o' gyrcars parked not ten meterrs behind us?"

"Yeh, yeh. Pass the word to the others that we'll use the two at the left, you, Olejensen and Ganchru in the first, the rest of us in the second.

I don't see any guards inside the Dome."

"Nor do I. They seem all to be at the other portals or parradin' the walls." Robarmstrong moved away and was whispering to Paulkruger. Natlane peered out into the murky haze, shuffled feet nervously. So far, so good, but there was still time for a thousand things to go wrong. Suppose one of the stunned guards came to? Suppose someone stumbled over—?

"All right, Nat." Robarmstrong was back. "They understand."

"I was just thinking—maybe we should have pulled this same stunt at all the portals, one after the other."

"Maybe, but it's too late now to change our plans." They waited,

tense as an electric tingle at the napes of their necks, a shortness of breath, a dryness of mouth. "All right, lad," the Glaswegian whispered. "With this breeze, there's not enow o' the gas left to trouble a mouse."

Natlane's heart bumped his ribs and his lids narrowed. The air out there was clear again. The crowd, behind the deadline once more, had grown tremendously with accretions from the covert's afforded by the Plaza's structures. He filled his lungs, swung up a beckoning arm.

XX.

Rudolf van Gooch was tired. His brain was clogged with the toxins of fatigue, weariness was a sick-

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ness in his bones. In years he had never really slept, had achieved all the recuperation he required by letting himself sink at odd moments into a semitrance out of which he could come at will, fully aware of all that had passed about him while he had been in it. Now, for six days and nights, these periods of surcease and renewal had been denied him. For six interminable days and nights the complete alertness of all his faculties continuously had been demanded of him lest the world burst into flames.

The recalcitrant psychoneers could not last much longer. Even though, oddly enough, the Paris area was the one region on the face of the Earth whereon the Dome's currents could not be made effective, too close, unfortunately too close to the Dome to permit of the vibrations being focused, their obduracy must be nearing its limits.

By morning, surely by morning they would come crawling back, beaten and subservient to his will, and he should have won his gamble for empire. By morning he could let himself sleep.

Sleep. If only he could let himself sleep for an hour. He was very old. The weight of his years was heavy upon him. If only he could permit the dark flood of sleep to well up into his brain and possess it for thirty blessed minutes of oblivion—

If only he dared sleep for fifteen minutes, a fleeting quarter hour, he would waken refreshed, rid of this terrible fatigue, rid of this leaden sense of something threatening, of

peril overhanging him like a great, dark wave, looming over him.

Natlane's uplifted arm signaled the crowd. A cheer started, was quickly quenched. The throng was surging forward. It was over the deadline and in its forefront were six black hooded men. These reached him. He snapped to them to make for the two gyrcars at the right end of the waiting line, "The West Portal, remember."

Behind him was the whirr of a gyrcar, taking off. Natlane turned and was running to where Paulkruger was climbing into another. Natlane was scrambling into the gyrcar and behind him—below as the car leaped into the motion—was a muffled thunder of footfalls.

Hailassie had the controls all out. A wind of speed whistled past Natlane and on the wind were shouts of long-pent wrath, screams of sudden terror. They were level with the Gallery and Natlane saw three psychoneers trample into a cubicle, saw an ungainly form go down under their blows. "The Lamp," he yelled. "'Ware the Lamp," as the cubby shot behind. Hysteric laughter ballooned in his chest. It was funny that his thoughts even now were for the precious humispheres.

"Ivan was right," he chortled. "We're just slaves of the Lamp."

The gyrcar zoomed down on a long, fierce slant for the East Portal. Below another car was just landing and three black figures leaped from it. Six others twisted to them from within the entrance embrasure. His own car alighted and Natlane was

out of it, was throwing himself into the black cloud that had shrouded the nine black shapes.

His arm rose and fell, rose and fell, jarring with the pound of his gas gun's butt on hooded bone. Fingers grabbed it and Robarmstrong's shout was in his ears. "All right, lad. All right. They're doon. Back to the car."

They were flying again and the floor below was a helter-skelter of grotesquely limbed, awkward men running from, pursued by, ones in the blue-green uniforms of Peacemen. They were slanting down to the South Portal but there were no guards within its high arch.

The gyrcar zipped through the opening, lifted again, outside the Dome. There were the guards! They were fleeing across the dark and desolate tarmac, terrified little figures in black, fleeing from doom—

The dark wave piled higher, and still higher. It was a monstrous black menace blotting out the dark sky. Rudolf van Gooch stared up and up and up again to its summit and that monstrous crest was arching over, was a terrible canopy over him, and he was unable to move, unable even to cry out.

The wave broke—!

Van Gooch woke in a cold sweat of terror. It was a dream. It was only a dream. He'd forgotten what it was like to dream. He must still be dreaming. Though he'd given no permission for it, the irised entrance to his sanctum was a gaping black hole in its iridescent wall

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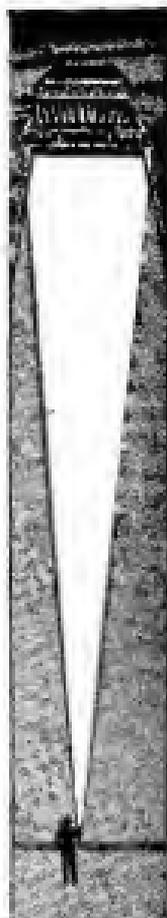
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and toward him across the brilliantly shimmering floor ran six black robed men.

His guards. They had no right to enter here without permission.

They were here in front of him, halting. "What's the meaning of this?" the chief demanded. "I did not give you permission to enter."

"You're giving no permission to anyone to do anything any more, Van Gooch." The tallest of the four ripped away his mask and the face revealed was Olejensen's. "You depended on the loyalty of the men you posted to protect you, but you forgot that loyalty to a man rather than to an ideal lasts only as long as the man has the wherewithal to buy or the power to enforce loyalty." The others were unmasked now and they were the switchman named Robarnstrong who'd defied him in the union hall, the other termagant, Paukruger; Stanrod, Jocarter, and—Natlane. NATLANE!

"You're through, Van Gooch. You're licked."

"Natlane!" the old man whispered. "Oh, you fool! You will destroy the Dome, and the world with it!"

"No, Van Gooch. I intend only to keep it at peace."

"Peace, you young idiot? You will loose a new race on the world, and you or your successors will control that race—and the earth. You are mad for power. You will get it, and destroy the world, and yourself with it."

"Even as you have, Van Gooch?"

"I? I have no use for power!

All I wanted was to save the world as quickly as possible in the way I thought was best."

Natlane spread his hands and grinned, not unkindly. "Jo—you hear that?"

"That's it, Nat."

Natlane turned to the oldster and shook his head sadly. "Van Gooch, you ought to know this. I have been fighting a lot of things—the stubbornness of my kind of detailed research, and you, and those dough-faced thugs of yours. But the toughest fight I have had was with myself—with my own ideas. Thanks to Jocarter here, I have finally shaken them down. Jo had ideas, too. Jo wanted the Dome, and only the Dome, to control the world. He couldn't see anything else but that. That was what he thought was the right thing to do, to save humanity from itself. He learned—the hard way—that it is a way to save us. Not *the* way. See? Right, Jo?"

"Right," said Jocarter in a strange voice. "World conquest, by force, or by politics, or by science—it's all the same—all bad. I saw some of it. . . . they killed little kids."

"You know," said Natlane, "when I heard about that, everything fell into place. I got your number. Van Gooch."

"I was trying to protect the world from you, Natlane—and you from yourself."

"Mighty nice of you," said Natlane, and laughed. "I felt all along that there was some similarity between you, and that idiot Plovitch

from Irkutsk—and myself. When I heard Jocarter's story, I realized what it was. Each of us was bent on saving the world *in his own way*—which is good. What was bad was that we all wanted to save the world *only* in our own ways. See what I mean? Plovitch with culture; I with my new race; you with your own established organization; Jocarter with the same thing. All of you wanted more and more power to do the job. Plovitch was going to make humanity culturally rich if he had to beat it into them with pile drivers. Jocarter here would have given anything for the power to force the Dome on the world, fifty times as powerful as it is, purely to make the Dome the savior of the race. And I—"

"You will have the power now, and heaven help the—"

"I'll have nothing of the sort. You were right, Van Gooch. You saw my error; for me you knew that there was disaster in the creation of a new, emotionally impervious race, conditioned by *one man's ideas*. You applied the principle to me which you couldn't apply to yourself."

Van Gooch's eyes seemed to sink even deeper into their sockets. "You've—changed, then?"

"I've changed. The Dome will hold humanity in check until it matures enough to work out its own salvation. I shall see that it does."

"You will be as great as Rad Hoskins," murmured the ancient. "But—" Then no further sound came from the ancient mouth. The black blur of night was in his eyes,

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creeping over his brain. Rudolf van Gooch sank into a night that would never end.

Three months later Jocarter appeared at the anteroom of the control sanctum.

"Jo!"

"Hi, Marilee. The chief busy?"

"Not too busy for you." She smiled swiftly at him and touched the edge of her desk. "Jocarter to see you, chief."

"Send him in!" said the desk.

"Good morning, chief."

"Don't call me chief, ol' horse. Pull up a section of floor and sid-down."

"Yes sir . . . er, Natlane." Jocarter stepped forward, smiling a little diffidently, and sat in the soft chair which appeared magically for him. "I just want to report that Jersey Exchange is blued off and well under control."

"Good. How are you doing?"

"Fine. Very busy."

"I'm not. Not busy. But I envy you, Jo."

"You envy me?"

Nat's voice was haunted. "This room. Big, Jo, and empty—and heavy on my shoulders, if you see what I mean." He shook himself. "I sometimes wish the Board hadn't drafted me—"

"You're doing all right."

"Yes, but—Jo, this thing *can't* go wrong. We musn't let it ever slip again. Listen. I want you to keep your eyes and ears open. If you ever see the slightest sign of our

work going astray the way it did with Van Gooch, let me know and I'll take measures . . . what the devil are you grinning at?"

"You, Nat. Nat, pull up. You want me to spy around, is that it? You trust me—now. A little later, I would have to be watched—just so you'd be on the safe side. Then you'd better get an underground crew—say the Sewer Dwellers—to make sure you'd have an ace up your sleeve just in case somebody wanted to take over who thought he knew how to save the earth from humanity—"

Nat turned pale. "Great Hoskins, have I got the disease, too?"

"Occupational disease, pal."

Nat took a deep breath. "I'll watch it." He looked up at the vast, vacant ceil. Suddenly he pressed a button.

"Marilee."

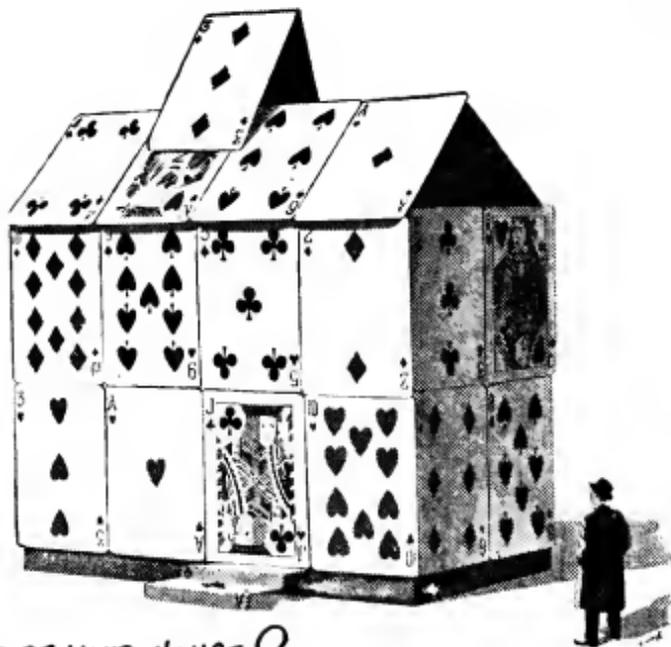
"Yes, chief."

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"Two: Following cold light inscription, lettered in duplication of that on the Dome wall, to be installed on ceil of Sanctum: '*One thing alone defies man's skill and his will. One sole thing man cannot change—the fundamental nature of man.*'"

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