


## Amazing Luster-Foam

"Bubble Bath" gives Super-cleansing in delightful new way

MIRACLE? Magic? Strong words, these, but research men say Luster-Foam deserves them. Even more important, thousands of everyday women and men agree. We hope that you will also, when you try the new formula, Listerine Tooth Paste, supercharged with Luster-Foam detergent.

The new, different way Luster-Foam detergent cleanses the teeth is due to its amazing penetrating power . . . its startling ability to go to work on remote and hard-to-reach danger areas where some authorities say more than $75 \%$ of decay starts. Youknowthem-areas between teeth, on front and back of the teeth, and on bite surfaces, -with theirtiny pits, cracks, and fissures which re-

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tain food, acid ferments and bacteria.
To these danger zones, and other areas, comes the fragrant, foaming bath of Luster-Foam. There it does these three things gently and safely:

1. Quickly sweeps away food deposits and new surface stains. 2. Attacks film which dulls the natnral luster of the teeth. 3. Aids in preventing dangerous acid ferments which basten decay.
While such complete cleansing takes place, you are conscious of a feeling of delightful freshness in the entire mouth-and that freshness lasts!

If you want luster that dazzles, start using the new formula, Listerine Tooth Paste with LusterFoam. In two economical sizes: Regular 25 $\phi$, and Double Size, 40 $\neq$, actually containing more than $1 / 4 \mathrm{lb}$. of this new, mouth stimulating dentifrice. Lambert Pharmacal Co., St. Louis, Mo.

## Mr. Mattingly \& Mr. Moore fall into a fine whiskey value!




PERHAPS many of our readers remember how, long ago, western stories came into prominence, and held the spotlight as the most important factor in current entertainment. Also, they will recollect the surge to popularity of the detective story, the gangster story, the horror story. And now, after thirteen years of constant appearance, science fiction has commenced to gather its might to take its place as the fiction leader of America. Today the era of science fiction is dawning, and your editors confidently predict that it is an era that will not end as have the others. Science fiction is no longer a mutant in fiction, it is a virile adult, just beginning a long and worthwhile life.

AMAZING STORIES is proud to be the leader of the new era, as well as of the old, and the aristocrat of science fiction will continue to live up to its reputation. As its editors, we will do all in our power to bring science fiction to the highest pinnacle ever achieved by any type of fiction.
As an integral part of our determination to do that, we have conceived and brought to actuality, a sister magazine to AMAZING STORIES. You will find complete description of it elsewhere in this issue.
In bringing this magazine to our readers, we are proud to state that we have incorporated every possible desire of the true science fiction fan. You have asked for a large size magazine; this is it. You have asked for trimmed edges; the new magazine has them. You have asked for Paul; he does the back cover. You have asked for front covers without type across the painting; we have given it to you. You have approved of the policy of AMAZING STORIES; we have made the new magazine's policy as rigid as to quality as its famous sister. You have asked for fantasy, for science, for adventure, for real, living, breathing stories of high quality; if the spending of one whole year in the planning of this magazine, in the selection of the best stories we have read during that long year, the securing of the services of the top-notch authors in the field, the best artists, namely, Paul, Fuqua, and Krupa, to illustrate them, then we have attained that goal also. You have asked for wide variety; the new magazine covers a sensational range of science fiction, from straight science to stories like the classics of Mer-
ritt, of Burroughs, of Taine. You want absorbing departments, both true and fiction, and we have developed a series of them which we confidently predict will make you gasp with pleasure.

We DARE you to read FANTASTIC ADVENTURES, the most sensational development in science fiction ever to hit the stands of America, or of the whole world, for FANTASTIC ADVENTURES will be read by members of every race, every continent. We CHALLENGE you to read just one story in the initial issue, because we KNOW you will be convinced that it would be tragedy to ever again miss a single copy. You've acclaimed AMAZING STORIES, now add its big sister, FANTASTIC ADVENTURES, to your list of musts !

YTOUR editor reads a lot of stories which have to do with worlds in the atom, or the electron, and every time he gets one, he begins to wonder. The velocity of light has been postulated as the universal constant, which may not be exceeded. Einstein, Lorenz and Fitzgerald, and others have made it axiomatic, because at that speed, mass would be infinite, which is obviously impossible. And yet, the law of wave-mechanics emphatically postulates that an electron is a group of waves in a sub-ether. The equation which establishes the relationship between the electron's speed and the waves of which it is composed is: $u v$ equals $c$ to the second power, where $u$ is the velocity of the waves in sub-ether, and $c$ is the velocity of light. Therefore, when the electron is moving at a velocity less than that of light, the velocity of the waves in the sub-ether is greater than $c$. What is right? Is light the fastest speed in the universe, or are sub-ether waves faster? Relatively, might not an infinite mass, or an infinite speed, be something vastly different from another point of view, or point of comparison? It might not be infinite at all.
TT is interesting to note that in connection with Edmond Hamilton's story, "Valley of Invisible Men," in our March issue, that Colonel Fawcett, the lost British explorer, disappeared in that same country, the Matto Grosso region of Brazil, some dozen years ago. The interesting part is that Fawcett was in search of a legendary white race he be-
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MAY
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Rod swung in emptiness, below him an awesome, vast, darkened city

# Secret of the Buried City <br> <br> By 

 <br> <br> By}

## JOHN RUSSELL FEARN

# Rodney Marlow found a metal city buried beneath 

his farm, and in it the secret of an amazing menace

## CHAPTER I

Mystery Metal and a Mystery Girl

RODNEY MARLOW had bought the old farmhouse with its several acres of land with the idea of turning it to profit. He had envisioned fruit and vegetables produced by his expert technical knowledge from the Agricultural College. . . . But the presence of large quantities of old iron under the subsoil rather upset his ideas. In fact, he was distinctly annoyed. Everywhere his shovel touched, wherever his pick drove into sunbaked earth, he encountered more metal. On every portion of his land it was the same, and probably it explained the sickly nature of even the weeds and grass which were unable to form any deep root growth.
"Swell place to sell to a guy!" he growled one morning, pausing in the hot sunshine to mop his face and gaze round with baffled eyes. "Must be an old car dump, or something. . . ."

He meditated for a moment, gazed back at the silent farmhouse, at the lonely country around him-then with sudden savage vigor he whipped up his pick and drove it down with all the force of his young, powerful muscles.

Immediately he jumped back, gasp-
ing at the pain stinging through his palms at the terrific rebound. Woefully he stared at his pick; the pointed end had bent considerably under the impact.
"No wonder I got the place cheap," he muttered, then as the pain in his hands began to subside a puzzled look came into his eyes. Something of his anger changed to wonderment. All the land metalbound? Definitely! He had driven his pick into almost every quarter of it. Perhaps a foot or so of soil, then metal-rusty and incredibly hard.

Slowly he went down on his knees, stared down into the nearest foot deep cavity he had made. Reaching down his arm he hammered on the metal with his knuckles; it gave back a solid, earthy thud.
"Looking for worms?" inquired a quiet, amused voice behind him.
"Huh?" He emerged with a start, straightened his tumbled black hair. A girl in a cool, summery frock was gazing down at him, swinging a large picture hat in her hand. Her blue eyes were still smiling as he hastily stood up.
"Some-something I can do for you?" he asked, rather puzzled. He had imagined himself entirely alone: his last look round the landscape had revealed
its emptiness. . . .
"I wondered," the girl said, "if you could direct me to Middleton? I've walked nearly five miles from my home, I should imagine. Once I left the main road I seemed to lose my way," and she jerked her sunflooded golden head back toward the dusty road leading past the farm.
"I saw you here as I came past, and so-" She stopped, waited prettily, still swinging her hat.

Rod wiped his powerful hands rather uneasily down his trousers. This sudden shattering vision of loveliness in the wilderness was rather too much for his peace of mind.
"Sure I can direct you," he nodded. "Take the road straight through until you come to fork roads. Turn due left, and keep going."
"How far is it?"
"About three miles from here."
The girl sighed. "The car would have to break down this very day! I'll have no feet left at this rate. You haven't a car I could borrow?"
"Sorry, no." Rod shook his head regretfully. "You see, I live alone here, and I've no particular use for a car. I walk if I want to get anywhere. But I don't like to see you having to do it," he added gallantly. "I suppose a farmhorse wouldn't be any use?"
"Do I look like an equestrian?" the girl asked dryly.
"Eh? Well-no. But if your mission's important. . . ."
"Not particularly. A friend asked me to drop over and see her on business. The day is all right, but the dis-tance-1 I'd no idea it was so far." The girl winced, fanned herself with a wisp of lace and glanced down at her dusty shoes.

"I'M Phyllis Bradman," she volunteered suddenly, and with a certain
purposeful movement she took a step back and leaned against the fence, eyeing Rod curiously. He returned the compliment, smiled rather shyly.
"My name's Rod Marlow," he said, shaking her slim hand. "I'm sorry you're put out like this. Guess that if I hadn't spent all my spare cash on this dump I'd have had a decent car to offer you- Some guy must have taken me for a sucker when he sold me this lot."
"What's the matter with it? Something to do with that hole you were peering into?"
"Take a look," Rod growled, and gently grasped the girl's arm as she stared down into the cavity. She seemed unaware of his grip as her thoughtful eyes looked down; he for his part found the contact remarkably alluring.
"This metal's all over the place," he went on sourly. "Doesn't seem to be broken at any point, either. I had visions of orchards and vegetables, and instead I get this. Wish I'd stuck in the auto factory now, boring though it was."
The girl looked at him quickly. Her face was no longer amused; it was serious.
"Do you realize that you may have something here which is far more valuable than orchards or vegetables?"
"Such as?"
"A meteorite, maybe-though I certainly never heard of one landing in this part of the Middle West. Some scientists would give their souls to have what you've got buried right in your back garden."
"They can have it," Rod grunted moodily. "I'm thinking of the money I've lost."
"You might try and get through the metal," the girl said hopefully.

Rod stared at her. "Say, why are you so interested in the stuff?" he demanded. "And where would be the
sense in just digging through a lot of iron? Think of the time it would take! The season would be finished by then-"
"Listen!" The girl spoke so imperiously that he promptly subsided. "I'm no scientist in the professional sense, but I do know a thing or two about the things they go crazy over. If there is an enormous, hitherto unfound, meteor right here on this land of yours you'll more than get your money back from the Scientific Association. On the other hand, if it's only a great sheet of metal, perhaps from the foundations of some old building, you'll soon find how deep it is after drilling through it. If you come to soil after an inch or so it is an old foundation: if not, then it's a meteor."
Rod rubbed his chin thoughtfully. "Maybe you've got something there. I'm beginning to think it's lucky you chanced along as you did-"
"Have you an acetylene torch, or an electric arc welder?"
"I guess not."
"Right!" With sudden activity the girl put on her hat; it framed her sensitive, intelligent face in a lacy halo. "Leave this to me, Mr. Marlow. I've got to go into town anyway, and while I'm there I'll buy an electric welder from Markinson's. They're big electrical people."
"But-but I can't afford things like that!" Rod objected. "Hang it all, Miss Bradman, I-"
"Forget it!" she laughed, moving away. "We're both in on this. Science is a pet fad of mine, anyway. I'll be back sometime this afternoon-and don't be surprised if I've bought a car in the interval!"

She moved to the fence opening and out into the dusty road, leaving Rod staring blankly after her. He had known girls in his time, none of them
very impressive-but this one positively took his breath away. Her calm decisions, her beauty, her manifest in-telligence-
"Gosh," he whispered, and looked at her slim, retreating figure striding actively away through the sunshine.

He turned to look back at the holethen once more to the road. But the girl was no longer there!

Dumbfounded, he raced to the rail of the enclosure and stared along the great dusty expanse leading to Middleton. There was not a single corner where the girl could have hidden herself, and yet-
"Gosh!" Rod gulped again. He wondered if he had had a touch of sunstroke. But surely a girl like that could not have been a delusion? If so, he was willing to have more of them. He went slowly back to the hole. The girl's footprints were still visible in the loose soil.

## CHAPTER II

## An Incredible Discovery

ROD hardly knew how the time passed afterward. Repeatedly, memory of the girl returned to him; it even put him off his dinner. Most of the time he was outside, shoveling away a good clear area from the hole.
Then, toward midafternoon, he looked up with sudden expectancy at the sound of distant roaring. Screwing his eyes against the sunshine he discerned a long trail of dust whirling up the road; something merged out of ita fast roadster. It stopped at the fence opening with a scream of tires.
"Hallo there!" Phyllis Bradman waved her arm cheerfully, climbed swiftly out of the car and came tripping across to where Rod was standing.

He eyed her rather dubiously, glanced across at the auto.
"Then you did buy one?"
She nodded. "I can always do with two, and money is no consideration so far as I am concerned. I brought an electric welder along with me, too. You'll have to carry it, though."
"O.K." Rod strode across to the roadster, surveyed its smooth lines enviously, then hauled the heavy welding instrument from the big rumble seat. The girl came up behind him as he lowered it into the shallow hole he had dug.
"I can't begin to thank you--" he began, but she waved her hand indifferently.
"Skip that. Point is, can you work the thing?"
"Sure; it's on the same design as the welders we used in the auto factory. Only wants connecting to the power socket. . . ."

He picked up the surplus flex and carried it back to the plug and socket just inside the farmhouse door. Then he returned and switched the instrument on, took the pair of blue goggles the girl pulled from her handbag. Silently she slipped a pair over her own eyes.
"Funny thing," he murmured, as he tested the savagely bright flame. "I could have sworn something queer happened to you when you left me this morning. When I looked for you down the road you had vanished. Where the deuce did you go?"
"Only on and on," she sighed. "The furthest three miles I ever struck. There's a dip in the road a bit further along, though; and since I stooped to adjust my shoes that's why I probably was out of sight."
"Yeah-maybe." But Rod's voice had no ring of conviction. Innocently though the girl regarded him, calmly though she explained away the mystery, Rod knew that his eyes had not deceived him. Deep rooted inside him
was a growing wonder.
Motionless, they both watched the biting core of incandescence from the welder eat steadily into the metal amidst a shower of sparks. Minutes passed, and still it bored steadily downward.
"If this is the floor of an old building it must have been a bank," Rod growled at last. "We've penetrated a foot of metal already, and still going."
"If it is a meteor, it might be solid," the girl observed. "Anyway, go right ahead and we'll see what happens."
He nodded, continued his activitiesthen five minutes later he glanced up triumphantly.
"It's through! The metal's about two feet thick and as tough as the devil. Won't be long now."

With a new enthusiasm he cut a line, formed it gradually into a square, then as the last piece fused away he thudded heavily on the metal with his boot. The section gave way and vanished below. The sound of incredibly far distant echoes floated upward.
$\mathbf{W H I P P I N G}^{\text {Hiff his goggles he stared }}$ at the girl with amazed eyes. Taking off her own glasses she returned his look, peered at the black square. It framed an absolute, ebony dark.

Regardless of the soil and dirt the girl went on her knees beside Rod. Together they peered down. At last their eyes met once more.
"No meteor could be this thick," Rod muttered. "You heard the echo from that fallen metal plate? It sounded miles away. . . ."

He relapsed into thought for several moments, then suddenly snapped his fingers.
"Got it!" Scrambling to his feet he went over to the farm and returned with an enormous coil of strong rope, together with an electric torch. He
flashed the beam swiftly in the opening, but it failed to reveal anything beyond black, empty space. In silence he tied it to the rope, lowered it down and watched intently. Only when the rope was nearly at its extremity-one hundred and fifty feet-did the torch alight on something solid. What its exact nature was was not distinguishable.
"Smells dank," Phyllis said, sniffing.
"But what the dickens is it?" Rod demanded, hauling the torch back again. "Can't be a disused mine. . . ."

He meditated briefly, then shrugged. "Guess there's only way to find out, and that's go down!"
"But-but suppose something happens?" the girl asked anxiously.
"Have to chance that. We can't leave this hole here and not know what it's all about, can we?"
Rod thrust the torch in his hip pocket, fastened one end of the rope securely to the car axle and dropped the other end into the hole.
"Wait here until I come up again," he said to the girl, and she nodded slowly, watching anxiously as he lowered himself into the hole, gradually vanished from her sight. Lying face downwards she squinted into the dark.

Rod could see her head and shoulders above him as he descended. She grew more remote. He swung in emptiness, the rope sliding gradually through his hands and past his scissored legs. Pausing once, he tugged out his torch and waved it around. Darkness. He sank lower. The hole above became a square star with the girl's head still outlined against it-
Suddenly his feet were scraping something solid. It felt like metal Gingerly he released the rope and edged forward, tugging at his torch as he did so. But the torch jammed in his hip pocket. He tugged at it furiously, then before he realized what had happened
his left foot plunged into emptiness and he went flying into space It was impossible to save himself. He seemed to fall for infinite miles, landed at last with a stinging pain through his head. Weakly he collapsed, stunned with the impact.

G RADUALLY, from the mists of oblivion, he became aware of sounds-rustling, metallic sounds, like joints moving in oiled sockets. For a time he lay with his eyes closed, almost devoid of all sensation, save profound bewilderment. The memory of his fall and blow on the head was still in his mind.

The noises seemed to grow stronger. His nostrils drew in the sweetish, sickly odor of powerful antiseptics; he heard the gurgle of water, the clink of glass striking glass. . .

Wearily he opened his eyes, lay gazing in blank wonderment at a shadowless flood of light contrived from somewhere in a metal ceiling above him. His first impression, which he just as quickly dispelled, was that he was in some kind of hospital. But the instruments around him were ahead of those in any hospital, despite the advanced surgery of this year 1967. Further, the objects moving about so gently and putting their instruments away were not living beings, but robots. Three of them-perfectly fashioned creatures of metal, even with strong resemblance to human beings in outline and face, but just the same still mechanical.

Rod sat up with a jerk as the full significance of everything dawned upon him. He winced at the stinging pain in his head. Everything rushed back to memory-the fall, the hole through the metal-Was this, then, the inside of the metal mystery? Through the windows of this particularly replete place he could distinguish other buildings, low
built, and floodlit, stretching away for perhaps two miles then ending in blank darkness.

Phyllis Bradman? What had happened to her? Was she still waiting above? Shakily he got off the low built bed.
"Say, where the hell am I?" he demanded hoarsely, staring at the nearest robot.

The thing turned, moved slowly toward him. Then it spoke in a metallic voice-strangely enough in English.
"You are Rodney Marlow?" It was more a statement than a question.
"Yeah, sure I am, but who the devil are you? How did I get into this place, anyway?"
"You came near here of your own accord, through the opening you made in our roof. Evidently the outer surface of our buried sphere and city has pushed its way very close to your soil surface. However, that is beside the point. Nothing has lived here for tens of thousands of years. It has all been preserved. Your coming released hidden switches, started things moving again. . . ."
The thing paused for a moment, then the words from its open mouth orifice resumed.
"You stunned yourself when you fell from the steps. In fact you cut your head rather severely. An operation soon restored you to normalcy.

Rod gaped in amazement. He could not find the words to express the questions teeming through his brain. All he could do was stand and listen as the robot went on.
"Only as time passes will you begin to appreciate the truth about this underworld-the reason why I speak to you in your own language, why I am a mere machine. The forces motivating my words cannot, as yet, be understood by you. You will only grasp that
when you behold those who sleep in another part of this city. I am their spokesman. Time revealed to us, Rodney Marlow, that you would be the savior of your people-that is, the savior of those people who deserve to be saved. . . ."
"How long have I been here? What place is this?" Rod demanded.
"You have been here some three hours. This place is the last habitation of former man-civilization which existed before yours. We retired here before the threat of a vast cosmic disturbance, a disturbance which is about to be repeated. The last men and women of this race still live, but sleep. In due time, Rodney Marlow, you will revive them-but first you have the more urgent task of saving those of your own humanity who deserve to be saved. Certain things must be revealed to you . . . Come!"

ROD obeyed the command dutifully, following the robot from the amazingly efficient surgery into an adjoining building. Its size was enormous; the machines it housed positively breathtaking in their implication. In startled wonderment he gazed around him.
"Be seated, and watch!" the creature commanded, motioning to a stool.

Again Rod obeyed without question, and curious instruments were attached to his head and body. The hidden lights in the great place expired and his gaze transferred itself to a whitely glowing screen. In bewilderment he stared at the vision of a great city, perfectly architectured, reproduced in flawless color. He heard its sounds, smelled its smells, seemed actually present. Tall, slender spires reached to a sky that was curious muddy yellow. Suddenly a large ship - was it a space ship? crashed headlong into a giant building, crumbling it in ruin to the ground be-
low, with a terrific roar of destruction. Then the view slowly lowered to a well planned street, and there Rod received another shock.

Instead of the activity of busy human beings such as he had expected, he saw instead sub-human looking creatures moving to and fro, the tattered rags of clothing clinging around them. Some of them turned on each other even as he watched, fighting with demoniacal fury. All around on the ground lay dead and decomposing bodies, litter and uncleaned filth.

Again the view changed, swept over seas that contained rotting, drifting ships, over cities that were naught but crumbling skeletons of their original selves. Everywhere, whatever view was shown, revealed destruction and decay of an advanced order.

Then the lights came up again and the screen blanked. The hidden projector ceased its soft whirring. The sounds died out.
"You have seen a movie film of an age long past," the robot explained. "There are of course many other records, but the one you have seen embraces the main facts. The last civilization reached the very peak of magnificence, then save for the few who managed to escape into this artificial underworld, progress ended.
"The earth during its spatial journey ran into the midst of a cloud of meteoric dust, so enormous in extent ten years elapsed before it was traversed. Though it was not dense enough to entirely block solar radiation, it was dense enough to be collected by and dispersed through earth's atmosphere, stopping a great deal of heat from reaching the surface and also preventing the flow of several other vital radiations.
"Pre-eminent among the sun's radiations is the one producing mitogenesis.*
"This solar radiation is responsible
for evolution. When the cloud came, the radiation was cut off and evolution stopped. In fact it did more than that; mankind atavized, slid backward down the ladder he had so laboriously climbed. If that seems a strange thing to your mind, remember that a dead body does not just stay dead-it starts to decompose, back into the very elements from which it was born.
"So it was, in a different sense, with human beings. They began to atavize. There were wars, crime, man fought against man. Cities crumbled. Everything in the world save this refuge made by the intellectuals, was wiped out. Man went back to the caveman of the Glacial Age, which in itself was produced by the solar heat blockage. Then the warmth and radiation returned. Man started to ascend once more, right up to his present statuswhich is still far below the peak we attained.
"And now that same cloud threatens again: only a matter of days separates it from humanity. It will be your task to save as many of your people as you can."

ROD said nothing. Actually he was wondering how the metal walls of this buried city, which had survived geological changes for such a vast span of time, had succumbed to the attack of an ordinary electric welder. Somehow, it didn't make sense.
"Why didn't you escape into space?" he asked at length. "You understood

[^0]space travel?"
"Certainly, but there was not a world we could go to. None of the planets in the system can safely support life, and the chance of finding a world in the outer deeps was too grave a risk. So we preferred to come below and insulate this one spot of Earth against all chances of atavism. Scientifically we duplicated the missing solar wavelength for our own use, but of course it could only be done on a small scale."
"And you say I am to herd my own people down here?"
"Those who are intelligent, who form the nucleus of your world's science and progress-yes."
"Even assuming I can manage it," Rod said slowly, "how shall I know how to carry on when I take over down here? All this is so much mystery to me. I'm not a scientist; my knowledge is by no means great. You spoke of some sleepers; what possible chance have I of understanding their motives and aims? How to revive them?"
"That will be revealed to you." The robot turned aside with another command. "Follow me!"

Rod walked pensively between the grouped machines, halted presently before a device which looked horribly suggestive of an electric chair. Rather doubtfully he obeyed the order to sit within it. Fear gripped him as the lights went out again, save for the dull glow of six red bulbs on a switchboard to the left of him. He heard the soft whir of machinery, then a clickSomething moved gently out of the dark and stopped before him, came to life as a glowing rectangle filled with vague, phantasmal shapes.

They represented nothing understandable, but as he watched them, with an hypnotic fixity which he could not by any effort break down, he could
feel his mind, his grip on things tangible, beginning to slip. He lost contact with his surroundings; the whole world was a darkness filled with crawling, incredible shapes that, somehow, did something to his mind.

Tremendous ideas began to drift into his brain. He saw hitherto unknown explanations for electricity, gravitation, and other riddles of physics. Engineering and mathematics; those too he fully grasped in their real significance. It was as though knowledge was being poured into him, and strangely enough he retained it all.

When at last he became aware of his surroundings once more his brain was burning with conceptions.
"You believe now that you will understand when the time comes?" the robot asked slowly.
"Everything," Rod muttered. "Granting, that is, that I can get people to believe me."
"That is your task, and you will accomplish it."
"Yeah . . . That's right." Rod stood in deep thought for a moment, then he looked up quickly. "Well, I've got to be moving," he said. "I left a young lady up on the surface. She'll be thinking I'm dead, or something. How do I reach the shaft I came down?"

The robot motioned to the open doorway. "When you go through that exit turn left and keep going until you come to steps. Go up them. Your shaft is almost immediately above their summit. You had the misfortune to slip as you landed. . . ."

Rod turned, cast one look back at the robot as it stood motionless against the wall of the vast laboratory, then he walked out into the soft glowing light of the city. Quietly he walked up the wide street, gazed around on the squat but solidly made dwellings. He came
at last to the steps-dozens of them, reaching upward to a remote square star which he knew was the hole he had burned.

Thoughtfully he began to ascend, the city dropping lower and lower behind him. The glow illumined his path. His mind was still in a turmoil. Ideas were falling over themselves-
At a sudden sound he looked up sharply. A long way above him on the steps was Phyllis Bradman herself, coming swiftly down toward him.

"MR. MARLOW! Rod!''she gasped thankfully, and her voice echoed in the great emptiness. "Oh, thank goodness. . . ."

Rod hurried to meet her. Breathless, she finally joined him, nearly fell into his arms.
"You're alive!" she cried, her eyes searching his face. "When I heard no sounds or anything from you I slid down the rope myself to see what had happened. I found these steps, guessed that you had fallen over the flat summit at their apex. I-I think they're intended as a sort of observational pyramid of steps, or something, and the hole you made happened to come right over them. I saw that city, all aglow, then- Well, I got scared. I didn't dare to call anybody here, and I didn't dare to visit the city either, so I just waited. It-it seemed hours."

Her rush and tumble of words stopped abruptly. Her eager eyes still studied him.
"What happened?" she demanded quickly. "Is it a real city?"
"Kind of-a refuge from the long dead past," Rod answered quietly. "Thanks a lot for coming down after me; I really appreciate it."
"Can I go down there?" she insisted.
"Wouldn't do any good if you did; I can tell you everything. Besides, there
isn't time. I've got a lot to do."
"You mean bring scientists and other people?"
"Among other things, yes. You can see the place then."

He took her arm decisively and they returned slowly up the monstrous flight. Certainly the steps looked as though they were intended as a lookout post over the city. Far away in the distance another pyramid reared in similar fashion.
"You're different, somehow," the girl said suddenly.
"Am I?" Rod smiled faintly. "I guess some of the things I saw down there were enough to make any guy feel different.

They fell silent again, presently gained the still dangling rope. Up above the pale evening sky was visible in the rectangular hole. Rod stepped forward, and at the same instant the glow from the city expired; the darkness of the tomb descended.
"Must be some kind of automatic switch in this platform which stops and starts things," he commented. "Last time I started the city going; this time I've closed it down. I half wonder if I'm not dreaming the whole darned thing. . . ."

Seizing the rope he began to ease himself up it.
"I'll go first," he said briefly. "When I call fasten it round your waist and I'll haul you up."
"All right - but hurry up! It frightens me down here in the dark."
Rod went up steadily, hand over hand, at last reached the surface. In a few minutes he had the girl beside him again. They stood looking at each other in the approaching sunset.
"Queer, isn't it, the things we've done since morning?" Phyllis said at last, smiling.
"So many things," he murmured,


Robot surgeons operated on Rodney Marlow's iajured head with superhuman efficiency
then as briefly as possible he told her all that had happened to him in the underworld. She listened in wondering silence.
"But-but why should you be chosen of all the people in the world?" she asked finally. "How did they know you'd arrive?"
"That I don't know; had something to do with time. Anyhow, I've things to do, and I start in tomorrow."
"Would you mind very much if I helped you?"
"Nothing I'd like better. . . ."
Their eyes met steadily, then with mute accord they moved to the girl's car.
"I shall hardly sleep tonight for thinking about all this," she said, slipping into the driving seat. "I've got something to live for at last; something interesting."
"But for you it would never have started anyway," Rod smiled. "You got the right hunch all right. Well, see you in the morning?"
"Early," she promised, then switched on the engine and engaged the first gear. Rod stood watching in silence as the car moved away through the haze of dust.

A sense of perplexity transiently settled on him. Queer how easily she seemed to fit into the whole picture.

He had never known a girl with so much interest in science. Or was it more than science? She had needed plenty of nerve to follow him down into that hole. He turned back toward the hole, gathered some boarding from the outhouse and roughly covered it up. Then he went inside the farmhouse and scraped together a solitary meal. He slept badly that night.

## CHAPTER III

Dr. Ashley Gore

ROD had hardly finished his breakfast the following morning before Phyllis arrived, pushing the door gently open and standing silhouetted attractively against the sunshine.
"Can I come in?"
"Right in!" Rod rose to welcome her, pulled up a chair and poured out an extra cup of coffee.
"Just what," she asked slowly, "do you intend to do? You say that humanity is threatened with atavism. Suppose nobody believes you?"

Rod's jaw set doggedly. "They'll have to believe me! Scientists aren't fools. I'll show them this underground place-that ought to convince them, surely. Then I'll outline the plan of escape. Matter of fact I'm planning

to head for New York this morning. You'd better come with me as a very material witness."
"I'll do more than that; I'll take you in the car. But say, have you decided yet on whom you ought to contact?"
"Matter of fact, no." Rod frowned. "I figured on doing that when I arrived in the city. I'm not well up on big scientists. I was going to look through 'Who's Who'."
"There's no need for that. The man you want is Doctor Ashley Gore. He's President of the Scientific Association, and as such is in a position to contact all the big scientists you're likely to need."

IT was late afternoon by the time they reached New York-nor did they find it easy to gain admission to the President of the Scientific Association. However, after considerable cajoling and stressing of urgency on Rod's part, they managed it, were shown into the great man's luxurious office.

Dr. Ashley Gore looked up from his desk with some impatience; it was close on time for him to leave. In appearance he was massive shouldered, faultlessly dressed, with the face of a prize bulldog and a startling bald head. Rather perfunctorily he waved to chairs.
"I sincerely hope you have something of real importance to discuss, Mr.-er -Marlow," he said briefly, glancing at Rod's card. "I'm a very busy man, you know."
"So am I," Rod answered tartly. "I thought you might be interested to learn that humanity is facing destruction, and that I have the means to save it."
"Another inventor, eh?" Gore smiled acidly.
"I'm not an inventor. I'm merely offering succor to those people in the world who are considered essential to progress. That's all. Disaster definitely
threatens every living being any day."
"Indeed!" Gore lay back in his chair, eyes half closed.
"All you have to do is to see the place wherein you can be saved; I will direct all other operations."
"You will direct!" Gore echoed in amazement, sitting upright. "Your modesty astounds me, sir! What exact position do you hold, may I ask?"
Rod gestured irritably. "Does it matter? Actually, I'm a farmer, but-"
"A farmer!" Gore shot to his feet with a purpling face. "A farmer! And you have the termerity to come here and talk of matters scientific? Of death for the human race? Do you realize--"
"I realize that if you'll instruct astronomers to examine space they'll find an approaching cosmis cloud!" Rod broke in hotly. "It will be here any day. The earth may take ten years or so to go through it, and at the end of that time, whatever is left of humanity without protection, will have gone back to the caveman stage. Human beings will be atavized, fighting each other in the ruins of a one time civilizationprobably in the midst of a second Glacial Epoch by the cutting off of solar warmth. . . ."

Gore's expression changed a little. He glanced at the girl, then back to Rod.
"I by no means believe your full story, young man," he said slowly, "but it does so happen that one thing is in your favor. Recent reports from astronomers, which of course pass through me , have revealed a strange haze in space blurring some of the stars. In fact several plates have been made and studied, but no man as yet has arrived at the real truth."

Rod shrugged. "Well, there you are. I've given you the truth. All I need is your further cooperation. Out at Middleton, one of the newer Middle West
towns, is a buried city, right under my own farm. Down there are all the necessities for protecting chosen people from approaching disaster."
"That is correct, Doctor," put in Phyllis quietly. "I've seen it myself."
"The least you can do is see for yourself before you start to condemn," Rod commented.
"Hmmm. . ." Gore stroked his chins then glanced at his diary. "Sunday tomorrow-no engagements," he murmured. "I could manage it at that. I have to admit that the curious coincidence of facts has aroused my interest, even though I feel there is no real danger. If, of course, you prove all you have said, I will have every scientist in the land investigating your claim."

Rod got to his feet actively. "Now you're talking, Doctor. I'll prove everything, never fear. Suppose we say tomorrow at nine in the morning? I'll be at the Regent Hotel. We'll drive over to my place."
"I'll bring my own car," Gore responded. "I have to return to New York remember. Nine o'clock it is."

DR. GORE not only brought himself the following morning, but also three other men-lean, gray haired experts of the scientific fraternity. Their manner was vaguely interested, but professionally doubtful. Evidently Gore had sensed something worth while in Rod's observations and was prepared to take a chance.

Throughout the day the two cars continued their whirlwind journey to Middleton, with only one short break for a tabloid lunch. It was nearing seven o'clock when they regained Rod's solitary farm. He paused only long enough to provide refreshments all around, then set out into the enclosure with Phyllis at his side and the men behind him.
Eagerly he threw aside the loose
boards, removed the last one with a triumphant flourish.
"There you are gentlemen-"
He broke off in dumbfounded amazement, staring blankly as though he could not credit his senses.
The hole was no longer there! The metal, yes-but it was as solid and unscratched as though never before revealed.
" $W^{\text {HAT the hell-?" Rod jumped }}$ down into the shallow pit and rubbed frantically at the grayness. No joint, no seam-no hole.
"Is this what you were-er-talking about?" Gore asked with awful solemnity.

Rod looked up dazedly in the doctor's cold eyes. The expressions on the other scientists' faces were grim and bitter. Only Phyllis looked sympathetic, though baffled.
"There was a hole!" Rod gasped hoarsely. "The entrance to the underworld. Isn't that so, Phyllis?"
"Of course!" She looked anxiously at the scientists. "That's absolutely true, gentlemen."

Gore turned suddenly. "Come, gentlemen! I think we have wasted time enough: forgive me for wasting your time on an absurd hoax. As for you two, you haven't heard the last of this-"
"But wait a minute!" Rod shouted, leaping up and clutching the scientist's arm. "I'll prove it yet. I've got an electric welder in the house. I don't know how this metal got recovered, but I can soon bore through again. Wait a minute, please."

Grudgingly, Bore agreed, watched in silence as Rod brought out the equipment and started to work with savage vigor. Minutes passed and searing flame blazed steadily at the metal.

Five minutes . . . ten minutes. The
scientists grew restless. Their eyes were twitching from the glare. Phyllis bit her underlip uncertainly. Rod could only gaze through his goggles, unable to swallow the devasting fact that the metal was not even heated, let alone cut!

Baffled, he finally switched off, tugged off his glasses.
"I-I don't understand it," he groaned, coming to Gore's side. "Last time I cut through it in a moment, and-"
"I-I think," Gore broke in coldly," we have wasted time enough."
"But hang it, can't you see for yourself that the metal is unusual when even this flame won't go through it?"
"We did not come here to inspect peculiar metals that open and reseal without reason," Gore retorted acidly. "We came to see an underground city which could be taken as proof of your statements. As it is, there's nothing more to be said. Good evening to you, sir-and you, young lady!"

STUPEFIED, Rod watched them go, climb into their car. He only began to come to himself when the dust had settled behind them.
"Phyllis, what on earth's gone wrong?" he demanded helplessly. "Can you account for it? While we've been away in New York somebody has resealed the hole-possibly one of the robots from the city below. But why? And why doesn't this damned welder cut through it as it did before?"

He regarded the apparatus disgustedly. Phyllis shook her blonde head.
"I'm afraid I don't know, Rod-unless the opening was secured with a metal far tougher than the other stuff. Perhaps the presence of other people isn't wanted below. . . ."

Rod rubbed his head in bewilderment. "But why not? Why on earth should my only chance of proving my-
self right be stopped? Oh, I don't know! What, for instance, do I do now? I'm sunk!"

The girl considered for a moment. Finally, she said, "I thought you said that while you were down there you were taught all manner of scientific things? Several electrical and engineering secrets among others?"
"Correct. So what?"
"Use your knowledge, of course. Never mind why the hole was sealed up; we'll probably solve that mystery later. Point right now is to discover why this welder didn't work this timeor if it comes to that you might try another part of the ground. Perhaps all the metal isn't the same-may only be this resealed portion we can't cut. Try it, before we go any further."

> "O.K."

In a moment or two Rod had obtained pick and shovel and dug another small hole some distance off. Confidently, he set to work again with the welder, but the answer was the same. It failed to make the least impression.
"Then all the metal's alike," the girl mused. "The only solution is to find something that will go through it. That's where your knowledge comes in. I'll help you if I can, but don't expect too much."
"But-"
"Now don't start protesting! Come into the house and get to work. There must be something you can devise: use your knowledge. It's the only way you'll find a permanent key to this underworld, or even an explanation of the mystery, for that matter."
Rod stared at her for a moment, then snapped his fingers.
"You're right!" His expression changed a little; he regarded her curiously. "Say, you're helping me a lot, aren't you?" he asked slowly. "Why do you do it? Have you some special
interest in all this, or something?"
She shrugged. "Consider the circumstances, Rod! I happened in on this right at the beginning. It involves world issues. Can you expect any girl with the normal desire for adventure to drop out right now? Not on your life! I've got to see how you make out. Now come on. . . ."

SHE led the way into the farmhouse, switched on the light. It was already nearing twilight. Without a word she went across to the bureau and found writing pad and pencil. She pulled up a chair purposefully.
"Now-concentrate!" she ordered briefly, pointing to the chair.

The girl's steady blue eyes were strangely compelling. The oblique rays from the light threw them into curious relief-deep blue irises and large black pupils.
"Gosh, Phyllis, you're beautiful!" Rod whispered, studying her.

She gestured impatiently. "Oh, never mind that! I'm here to watch you work. Get started!"

He nodded quietly and took up the pencil. It seemed odd to him, but the moment he concentrated the transferred genius from the underworld suddenly leaped into his conscious mind. He forgot all about himself and his surroundings, was only aware of the figuring and computing he performed on that sheet of paper.

Then another sheet - and another. Hour after hour he worked on, without eyestrain, without fatigue, plunging into the midst of the most complicated mathematics, of which, before the underworld venture, he had not even had the slightest knowledge.

Beyond doubt, he was a man inspired. When at last he put his pencil down he realized he was stiff with cramp. His head ached a little, too.

He glanced at his watch and gave a whistle: it was $2: 30 \mathrm{a} . \mathrm{m}$.
"Gosh!" he whispered. "Nearly six hours solid concentration . . . but I've got it! I've got it! Electrical energy of a certain wavelength will break down that metal. It will break down any matter in the universe. But how did I ever come to know that?"

He shrugged, sat staring at the mathematical solution he had worked out. He felt like a man who has composed a masterful oratorio in his sleep. Yawning, he turned, then gave a start.

Phyllis was lying on the couch, fast asleep, her traveling coat tossed over her.

Silently Rod crossed over to her, looked down at her perfect features. Uncomfortably he glanced toward the closed door. Strong ideas of conventions were still in his mind.
"Oh, hell!" he growled at last. "The world's going to change, anyway. What difference does this make?"

He drew the coat further over her, switched off the light, then tiptoed to his own room and flung himself on the bed.

## CHAPTER IV

## Into the City Again

$\mathrm{R}^{2}$OD awoke again to the tempting odor of frying ham and eggs. He dressed hastily and strode into the kitchen to find Phyllis in the act of pouring boiling water into the coffee pot. She glanced up with a smile of welcome.
"Just beaten me to it!" she said regretfully. "Thought I'd have everything ready."
"You know," Rod muttered, sitting down, "this is all wrong. You were here all last night, and that makes me look a regular heel-"
"Skip that and tell me what you found out," the girl interrupted briefly. "I'm not interested in what people think. Did you solve the problem?"
"Yeah, I solved it." Rod looked pensively at the ham and egg under his nose. "But in solving it I came up against something of a mystery. You see, an electrical wavelength, produced by incorporating the right amount of coils and resistances, will cut through any form of matter-not because of the heat it generates but because of the vibration, which shatters molecular clusters asunder. I could, with the necessary recoiling and electrical odds and ends, transform that welder of ours into the right instrument, and it wouldn't take me more than an hour. But why in Heaven's name did it cut through the stuff the other day and yet not yesterday? It is just as though it incorporated my special wavelength on the first occasion, but not afterward."

The girl nodded, stirring her coffee. "There may be another explanation. For instance, on the first occasion it was ordinary metal and collapsed under ordinary means. But after you had been below, the robots-probably by electrical means-toughened the molecular resistance of the metal in every direction, so that it could not be pierced again. That was why it didn't work the second time. Maybe they did it to test you, knowing that you had the knowledge to devise a means of entry if you wanted."
"Maybe you're right," Rod admitted, shrugging. "Funny how easily I solved the problem. Came just like that!" He snapped his fingers.

Rod finished his breakfast and pushed the plate away. Actively he got to his feet.
"Now there's work to be done. I want some special wire and electric stuff from Markinson's. I'm going to
convert that welder of ours. Maybe I can borrow your car?"
"You can do more than that," the girl replied quietly. "I'll drive you there and, I gather, you'll need money?"
"Huh? Lord, yes! I'd forgotten."
"Leave that to me. Now let's go."

ONCE they both returned to the farm, around dinner time, Rod spent most of the afternoon pulling the welder's insides to pieces and refitting it with the gadgets he had bought. He worked with a skill that inwardly amazed him, knew every detail of what he did, had a perfect knowledge of the position of every screw and every piece of wire. By the time he had finished the whole converted interior fitted neatly into position. Smiling with satisfaction he fastened up the exterior case, then plugged in the socket.
"We're ready!" he announced, as the girl glanced inquiringly at him. "Now let's see if my reasoning's O.K."

They marched outside to the original pit and jumped down. They donned their goggles, then Rod snapped in the switch of the apparatus and directed the savagely bright beam at the metal. Instantly there was a shower of sparks: a thin, dark line began to appear in the midst of the flare.
"I was right!" he panted. "It does work! It's going through. . . ." He watched for a moment or two longer, then turned sharply to the girl. "We're going below when I've finished. Garage your car, then get my other torch from the bureau. Bring some provisions and see the farm's locked up. O. K.?"
"Check!" the girl nodded quickly, and scrambled away.

By the time she had returned with the necessities Rod was triumphantly kicking away the metal square he had burned away. It vanished, was followed by an echoing clang from below.

He welded a metal ring beside the hole and fastened the rope lying nearby.
"Guess you'd better go first this time," he said, turning to the girl. "You know what to expect, and I'll follow right after you with the stuff. Here, take the torch. Ready?"

She nodded quickly, and he noosed the rope under her arms. Then bracing it twice round his arm he began to gently lower her into the cavity. At the limit of the rope her faint shout floated up.

## "All right! Come on!"

First he lowered the provisions down to her, then slid down gently to her side. As they began to move the metropolis below came suddenly into life. Rod waved his torch beam on the floor, following a long sunken line of metal which had formerly escaped his notice.
"So that's it!" he ejaculated. "Something like traffic signals. Pass one way over it and you light the city up like switching on a pianola: go the other way and you put it out. I wonder how it happens to be under the very spot we came through?"
"Maybe dozens of them, so we just couldn't miss," the girl commented.

For a moment they stood gazing down the infinity of steps; then they slowly began to descend, neither of them speaking. From this high standpoint the city was clearly visible. It spread for perhaps two square miles under the earth-solid and impregnable, housed in its globe of metal, air conditioned by hidden connections to the surface. Again Rod found himself wondering why the metal had been made so impregnable, why he had been stopped in proving his point to the scientists.

THEY came at last to the first building; the doors had been auto-
matically swung open. Rod recognized it immediately as the laboratory in which he had received his knowledge. The only difference this time was that there were no robots in sight. Everything was quiet.

At last Rod spoke.
"Well, what do we do?"
"Explore," the girl replied, without hesitation. "Once we have assessed this city's resources we may be able to decide what to do. Come on. . . ."

They made their tour slowly and thoroughly. Scientific achievements reared on every side, incorporating machinery of every possible use and description, most of which, Rod inwardly realized, he fully understood, thanks to the genius that had been conferred upon him.

The biggest surprise of all came when they entered an enormous domed place resembling a great mausoleum. On every hand, lying full length in six-footlong glass cases were motionless men and women, lightly clad, hands folded on their breasts. Altogether, Rod counted one hundred and ninety nine cases; the two hundredth, at the far end of the hall was empty.
"These must be the sleepers," he observed, turning to the girl. "In a darned good state of preservation, too. Later, I suppose, I'll have to revive them."

Phyllis nodded slowly. "When you're absolutely sure of the right method-not before. You might finish them off for good, otherwise."
"Yeah. . . ." Rod's eyes wandered to the last empty case and he frowned. "Queer," he muttered, then shrugging his shoulders he led the way out of the place, returned across the main square to the laboratory.

For another hour they both wandered around, until at last Rod found a magnificently equipped radio-television instrument. With unerring skill, using
once again his conferred knowledge, he set the complicated controls into action, started the generators. Almost immediately the screen, using absolutely perfect lifelike color, came into life. The loud speaker twanged noisily, then settled down.
"At least we're in touch with the world," he commented briefly, then he hesitated over switching off as the announcer's worried face and alarmed words arrested attention.
". . . nor have we any idea what is causing it, but it is an undoubted fact that a crime wave of unprecedented proportions seems to have been launched on America, Britain and Europe, commencing some time after noon today. Murder, rape and theft are sweeping all three countries; there are not enough detectives or police available to tackle the sin flood. Full details are not yet available. It can only be assumed that agents in each country have fixed a given hour and a given day to launch mass terror."
Rod switched off, stood in silence with lips compressed. The girl laid a hand on his arm.
"It's - it's started!" she breathed. "Must have begun just after we came below here. The first signs of atavism. In that case the cosmic cloud itself ought to be visible. Sky was clear when we came down here. . . ."

Rod slowly nodded, then struck with a sudden thought he switched on the televisor apart from the radio. His first study was of the sky. It was muddy yellow in shade, as though dense overhead fog was reigning. The sun's rays straggled weakly through it. He made observations of different parts of the world. Everywhere the color was the same.
"IT'S begun all right," he muttered; then switching back to New York's
main streets he surveyed in silence the scenes of obvious disorder, the mass rioting, the altercations between police and civilians, the general first collapse of normal law and order.
"Anyway," Rod muttered, switching off, "we're safe enough down here. This place produces synthetic radiations to take the place of the lost ones. Machinery must be somewhere around here . . ." He looked round quickly. He did not stop to wonder how he knew which machine was the right one; it came to him quite naturally. Thoughtfully he switched it on, stood listening to its beating purr.
"That makes us O. K.," he said slowly, "but I still don't like the idea of men and women turning against each other as they are doing. If only I'd have been able to prove my point to Gore this place would have been a haven."
"For everybody?" the girl asked pointedly. "No, Rod-only those that are worth saving. You said that yourself."
"Yes, but how does one discriminate?" he demanded.
"I'm not sure . . . yet," the girl answered slowly. "One thing is very certain, in my opinion. The whereabouts of this place must never be discovered by the masses at large; we'd be invaded. Even though we can beat anybody off with the apparatus around us, the intruders might do irreparable damage to the machinery first."
"So long as that hole remains in the roof anybody can get in," Rod reflected. "And that gives me an idea! I'm going to find out from that damned robot exactly why this place was resealed. The thing must be around here somewhere."
He turned swiftly and headed to the opposite end of the place. After some searching he found the robot standing against a corner. At his command it
moved forward. Sharply he questioned it, but it gave no answers, remained perfectly mute.

Baffled, Rod desisted. "You know," he said slowly to the girl, "there's something infernally queer about this. Last time this robot and two others were working of their own accord, but this time only my voice stirs it into action. What stimulated it on the last occasion? I don't see how it could start off on its own. It looks to me as though there's some mysterious conspiracy afoot to prevent me knowing why this place was resealed."
"Maybe, but you got in just the same," Phyllis pointed out. "The thing right now is to set to work and find out how to refill that hole with metal."

Rod nodded slowly, ideas once more turning over in his mind.
"Molecules of free air are only that way because of the spaces between them," he muttered. "Condense them, lessen the spaces, and we get a thin solid. Condense them still further and we get a strong solid. Add more molecules and atomic basis and we get-"
"The metal of which this guardian globe is composed?"
"Exactly. I'm going to work that out."

Rod moved quickly to the nearest table, pressed a switch, and an automatic calculating device shot from a concealed well. He experienced no wonder at the fact; instinctively he knew it ought to be there. He spoke steadily into the machine, gave the basis of his ideas, then waited as the mathematical interior of the thing clicked and whizzed persistently, building up a formula. In half an hour it was finished, complete to the tiniest detail.
"Wish I'd had one of these at school," he grinned, taking up the metal sheet. "Let's get busy. . . ."

He walked across to a self contained force-generating instrument, perched on three massive, wheeled legs. Seizing it, he pushed it through the doorway, aimed the sights on the far distant dim square that marked the opening to the upper world. With the girl right behind him he made quick adjustments to the multiple controls, carefully directed the highly polished, queerly designed lens.
"This thing generates force waves of infinite range, from constructive to destructive," he explained briefly. "Etherial agitation, if you like the term better. Anyway, electrical charges, following exactly the formula given here, will stream into that gap and condense the molecular paths of the air together, add other molecules into the spaces which are left. Result will finally be seamlessly joined indestructible metal - same thing we came up against.

He prepared to close the master switch-then suddenly Phyllis grabbed his arm frantically and gave a shout.
"Wait a minute! Wait, Rod! There's somebody up there, unless my eyes are playing tricks with me!"

ROD stared at the distant opening, his hands dropping to his sides. A figure was certainly in view, commencing to slide down the still dangling rope. Rod's face set grimly as he watched.
"So we're being invaded already, eh?" he demanded savagely. "O. K., I'll show him!"

He sighted the projector again, altered the frequency-then he stopped again as a shout reached him.
"Hey, there! Hey! Is that Mr. Marlow? This is Gore!"

Gore! Rod stared blankly at Phyllis, then just for a moment the funny side struck him. The sight of the pompous

President of the Scientific Association sliding awkwardly down that rope was certainly worth seeing.
"What the devil brought him back, I wonder?" Rod whispered, waiting; and presently the scientist reached the summit of the vast steps and started to pelt down them at top speed. Breathless, dirty, and perspiring he finally came to a stop, gripped Rod's arm.
"Is this the place you were trying to tell me about?" he asked wonderingly, gazing around.
"Sure it is, but-" Rod eyed him mystifiedly. "Say, what brought you back, Doctor? I thought you and your associates had given Miss Bradman and me up as hoaxers."
"We had - at that time." Gore breathed heavily. "Then, just after dinner time today the most terrible things began to happen in the city. Most people seemed to suddenly lose their sense of reason. Things just went mad. There's some kind of cosmic cloud in the sky. I thought back on all you had said, remembered your earnestness. You see, the thing I couldn't understand was not so much why you could not find the hole you had mentioned, but why there should be metal on your land which resisted even a welding flame. That was a point well worth pondering. I decided to give you the benefit of the doubt-came here by plane intending to take another look at the metal. Since the first half of your story had come true, the rest might. Anyway, seeing the horrible things going on in the city I saw no harm in trying. I found the farm locked up; then going to the hole I saw the rope, this lighted city, and- Well, here I am."
"And only just in time," Rod said slowly. "I was just on the point of sealing the hole."
"Evidently," the girl said slowly, "you are a man of intelligence, Doctor. You reasoned things out for yourselfcame right back here to correct your mistakes. I guess that took plenty of pride swallowing in a man of your position. But it'll pay you; you'll be safe enough down here with us."
"But that wasn't my main reason for coming," Gore went on anxiously. "Things are getting worse every hour, Mr. Marlow. Surely, amongst all this machinery there must be some way to counteract the atavism which has set in? Save humanity? That's what you set out to do, isn't it? What you were chosen for?"
"Not entirely, Doctor. I was chosen to save the deserving of humanitymen and women with intelligence and reason like yours. There is not, so far as I can find, any method here of saving the surface. The cosmic cloud cannot be dispelled by any means we've got. All that can be done is to collect down here all those who are worth saving. Only thing is, I'm not quite sure how to discriminate."
"I am," Phyllis put in, slowly. "Doctor Gore has provided the answer. He knows all the scientific and intellectual heads of every country. Every scientist and every master brain. That right?"
"Most of them," Gore acknowledged. "Why?"
"Your task will be to gather them together in the shortest possible time, bring them here. It doesn't matter how you get them, what methods you use, so long as you succeed. Until you return and bring those whom you think worth having with you, we'll keep the opening in the roof unsealed. How's that?"
"Perfect!" declared Rod with enthusiasm. "Matter of fact, that was the idea I had in mind myself. Can you do that, Doc?"
"Without delay," Gore nodded promptly. "Everything now depends on time. You can rely on me. I'll get back to New York right away. The plane's waiting for me."
"And as you go up the steps," Rod added, "take care to step over that metal bar at the summit. It's a switch."

Gore nodded, turned actively away. In a moment or two he was mounting the steps.

ROD turned slowly to the girl. "Well, that about settles that. Nothing to do now but wait."
"I don't agree with you there, Rod. As I see it, in about ten years the cosmic cloud will have passed and a civilization will remain-buildings, that is. But will it remain? On the last occasion not one brick was left standing on another because of the barbaric destructiveness of atavized humans. Definitely, in this case too, the atavizing people will drift to war and bestial savagery as they sink lower down the scale. Cities will suffer. A world well supplied with arts and treasures will be wantonly destroyed. That isn't right, particularly when down here there will be expert minds who can take everything over when the cloud passes . . ."
"Well?" Rod looked at the girl curiously.
"You've got to devise a means of destroying all those people who try to invade or pillage cities," she went on grimly. "It's the only just thing to do. And the only way to do it is to use this force projector on still another wavelength and on a larger scale. Devise a wavelength of destructive power which will pass through solid mattersuch as intervening rock, but will disrupt and destroy flesh and blood the instant it strikes it. . . . It can be done."
"And watch world events through the televisor meantime?"
"Yes. Seems the best course to me."
"O. K., I'll get busy-but I'm certainly not going to use such a terrific weapon from underground unless the wanton destruction of surface cities really warrants it. Sounds rather too ruthless to me."

The girl's eyebrows rose. "Ruthless? Is that what you think of me?"
"Not of you; only of your plan. You must admit it's drastic."

She remained silent, but Rod fancied he detected a curious hardness in her clear blue eyes. In silence he seized the force projector and wheeled it back into the laboratory, settled down to analyze it and work out a wavelength capable of piercing unlimited hard matter yet shattering human structure the moment it was contacted.

As he worked, with the adding machine to aid him, he was aware that Phyllis was watching him in silence. For the first time since he had met her his vague doubts were beginning to crystallize. He had always known the girl was somehow mysterious. Now he was beginning to think she was hard and callous-the last thing he wanted to believe. But there was no gainsaying the fact that since she had come to this underworld all the girlishness had dropped from her. Her whole manner was subtly altering.

## CHAPTER V

## A Degenerating World

TWO days passed in the underworld. They were days in which Rod spent nearly all his time working out the final details of a giant force projector, and afterward supervising its rapid erection in a comparatively deserted machine room near the laboratory. Engineering science and tireless robots made short work of a job that would
have otherwise been incredibly complicated.

While he was thus engaged the girl spent the time exploring, discovered the synthetic food department and set robots to work on such domestic matters as cooking and attendance. By degrees she unearthed the different places where comfort abounded-long airy lounges, softly lit, immensely roomy sleeping rooms; beds and bedding in perfect repair. There were all clothing requisites, unlimited water and food, automatically controlled air. . . . The place was a super efficiency of preparation, perfectly prepared for an indefinite siege.
It struck Rod that the girl was curiously subdued, and he inwardly blamed himself as the cause. He'd probably gotten her intentions all wrong, anyway.

She spent a lot of time at the radio televisor, intently watching scenes of vast disorder and senseless struggle, listened to the fevered yammerings of radio announcers declaring that war was eminent. Every nation was preparing to fling itself against its neighbor. The whole mad, insane world was drifting under the yellow skies to wholesale slaughter and destruction. Man was falling down the evolutionary ladder with incredible speed.
"It's easy to see," Rod commented slowly, as he joined the girl one afternoon, "how the early civilizations fell. Maybe, even, man's discontent through the ages has been an hereditary relic of that last devolution. At heart he is not all bad-nobody is. What is it makes people bad? Maybe that heritage."
"Maybe," Phyllis admitted quietly. "I never thought of it like that before. Whatever it may be, though, the wanton destruction which eradicated early cities from the world must not be repeated. We must stop it, from here-"

She broke off and the question Rod was about to ask was forgotten as they both turned at a sudden sound. A figure came slowly through the doorway, disheveled and weary. It was Doctor Gore. Behind him were evidences of other men and women, all of them worse for wear, expressions crossed between relief and amazement at the vision of the amazing underworld.
"You made it!" Rod cried delightedly and the scientist nodded exhaustedly.
"Yes. The hardest job I ever hadany of us ever had for that matter. Some have come by fast plane, others by road, others walked, but they all arrived. . . ." He turned, waved his arm to the people. "Ladies and gentlemen, meet Mr. Rodney Marlow and Miss Bradman. They will tell you the rest of the story." Looking at the two again, he added, "There are about two hundred of us altogether-the picked brains of America, England and Europe, in science, politics, engineering, geology, welfare, etcetera. . . ."
"O. K.," Rod interrupted briefly. "You'll be well cared for. Phyllis, see that they get a meal, then make accommodation arrangements. I'm going to seal that hole up before any unwanted ones start drifting down."

The girl nodded and turned away at the head of the weary people. Rod wasted no time sealing the gap. When at last the empty space was closed, with solid, immovable metal he breathed more freely, turned and headed back with the projector to the laboratory. To his surprise, Phyllis was there, seated before the radio. She switched it off and got to her feet as he came in.
"World war has commenced," she announced steadily.
Rod shrugged. "I expected it- But say, what are you doing here? What about the people?"
"They're O. K.-having a meal and a rest. The robots will take care of them. We've still got work to do, Rod. Your force projector's finished, isn't it? Ready for action?"
"Sure, but we've got to wait until we see a deliberate attack on a city before we--"
"We shan't wait for that," the girl answered coldly. "Every human being on the surface has got to be destroyed! The Earth, when it clears the cosmic cloud, will start again with a clean sheet, freed forever from the degenerate rabble which has tenanted it too long already."

ROD stared. "Good Heavens, Phyllis, do you realize what you are saying? It's world massacre!"
"Oh, don't be a fool!" Her voice was incredibly hard and commanding. "All the people that are worth while are down here, that's been seen to. Those who are left above are nothing better than animals, fast on the way to destruction. They'll kill each other in the end, anyway, but they'll destroy every useful city and its contents in the doing. I, for one, don't intend to allow that to happen. Destroy them! They're nothing but vermin. No brains, no sense, concerned only with their own petty lusts and villainies. . . . If you don't do it, I will!"
"You!" Rod laughed shortly. "You don't even know how!"

The girl hesitated a moment, then flashed him a look of biting contempt. Calmly she strode from the laboratory and closed the door. In an instant Rod was after her, caught up to her as she entered the projector room. The giant instrument was standing motionless, ready for instant action. Without so much as a glance to either side Phyllis moved to it, operated the switchboard which Rod had thought was his own es-
pecial knowledge, slammed in the switches that started the generators.

Rod saw nothing unusual, but from the graded scale with its quivering needles, from the slow turning of the giant apparatus on its universal bearings, he knew quite well that the girl was controlling the instrument through a slow arc, hurling forth destructive waves clean through the earth, destroying every living thing in the track that reposed on the surface.

Suddenly life surged back into him. He hurled himself forward toward the girl, intent on seizing her and stopping her wholesale destruction of living beings.
"Stand exactly where you are!" she commanded, and to his utter bewilderment a silvered object gleamed suddenly in her hand, whipped with terrific speed from the filmy dress she was still wearing. But this was not the pleasing, generous Phyllis Bradman he had grown to love: it was a cold, calculating woman with a mission to fulfill.
"Make one move toward me until this task is finished and I'll be forced to destroy you, Rod," she said slowly. "I beg of you not to make me do it. This weapon is a tiny duplicate of this object here. No flesh and blood can withstand its blast."
"But, Phyllis, what-? How-?" Rod stopped, too utterly amazed to speak further.

The girl flashed a glance at the meters, at the still slowly turning instrument. Her lips twisted into a grim smile.
"Ask yourself," she said quietly, "just what good are those left on the surface? What have they ever done? How can a single one of them survive the effects of ever growing atavism? They'll die, horribly. Maybe spend months in lingering agony from
wounds. War-of the vilest kind-will ride the earth and destroy all that has ever been built up, unless those who cause that war are destroyed first! It will be a quicker death for them-a merciful death, for in the end they are bound to meet up with it. The intellectuals, the brains of the world, remain. Down here! The rest will go, leave the earth to be taken over again unscratched. And out of it may grow a better, worthier civilization."

VAGUELY Rod began to see the point of her reasoning. He eyed her steadily.
"In an hour this projector will have encompassed every part of the globe," she went on quietly, turning away from it. "Since the force beam expands fanwise as it travels, it incorporates an enormous surface area at remoter regions of the world. I have it all reasoned out. Sixty minutes to eliminate a scum that should never have been on the earth anyway-which would never have been had birth been controlled and only intelligence been the permit to life . . ."
"You have it all reasoned out!" Rod whispered. "You have! I thought that was my task. I was chosen to save those that deserved to be saved . . ."
"At my direction, yes," Phyllis acknowledged quietly.
"What!"
"You've known me as Phyllis Bradman," she went on steadily, moving toward him and putting her weapon slowly away. "That is not my name. Actually, my position is that of a queen, though I am not designated as such. I am the complete ruler of this underworld. My name is Erina . . ."
"I always suspected there was something queer about you," Rod muttered. "But-but what does it all mean? What are you driving at?"
"I occupied the two hundredth coffin," she announced calmly. "Let me tell you the whole story. . . . I am the daughter of Saldon Ruj, the former ruler of this underworld-in fact of the whole world before the last atavism set in. When that atavism set in, many enemies were present with us down here. My father was slain. Events so worked out that our only chance of escape from them lay in feigning death by suspended animation, the period of the drug timed to last until mankind should be well on the upward trail again.
"Our enemies presumably slew each other, since no trace of them remained upon my awakening. Because of my position and authority the particular dose I had taken was timed to operate a year ahead of everybody else, so that I could determine in that time what course to take when the others recovered.
"I decided to see the world. I realized from our charts that the next atavism could not be more than a few days away. . . .
"I departed to the surface and took on an apparently ordinary identity. First thing I found was that geological slips had brought out metal underworld remarkably near the surface soil at one spot. Though the metal could not be broken without special knowledge, it was to me, rather disconcerting. The first thing I saw was you investigating the metal. I have to admit, Rod, that you attracted me immensely."
"Can a woman so clever, so resourceful, be attracted by a mere farmer?" Rod asked bitterly.
"Even a ruler, even a woman who has slept as long as I have, can still love," she answered steadily. "I was only twenty-two when I went to sleep; physically I am hardly any older even now. I saw the moment I met you that
you were no fool, and since part of my scheme included obtaining all the intellectual people I could find, I led you on. Your language was easy; your mind told me everything. . . . "
"Then my discovering the city, all that robot talk, was so much bunk? Even that about me being the savior of mankind?"
"Most of it was true, though I was back of you all the time. The robots, of course, acted and spoke in response to my commands. I personally supervised everything the first time you were down here. It was easy enough, even easier when you accidentally fell and hurt yourself. That gave me time to act."

"B
UT how did you get down? You met me coming back up the steps!"
"That links up with something else." The girl smiled mysteriously. "I'll tell you that later. As you may have guessed, the welder you used on the first occasion was one equipped exactly like the one you used for the final entrance. I arranged that. You found the secret because I hypnotized you into finding it. You were by no means a difficult subject."
"All those outporings of genius from that machine? Were they real?"
"In every way. I gave you knowledge of amazing range, all of which is going to be useful to you in building up the new civilization when we take over."

Rod frowned. "Now I understand why conventions didn't worry you. Why you had infinite money. Naturally, you manufactured the stuff?"

She nodded slowly, smiling.
"But, Phyllis, it still leaves parts undone. How on earth did you ever reseal that hole when we were away in New York?"
"That was easy enough. I transferred myself from New York to this underworld, performed the act, then returned to New York."
"What! All in one night! Whose plane did you use?"
"I didn't use a plane. Do you remember asking me once if I had disappeared while leaving you down the lane?"
"Sure I do. I've never forgotten it."
"It's a gift, Rod, handed on to me by my father as he died. Even as ordinary rulers hand down certain valuable secrets to their next of kin, so my father handed on to me a supreme scientific achievement of his own discoverymental control of matter. Mind over matter, if you wish, by which the body is compelled to obey the mind.
"If you remember, the early civilizations used it quite a lot; the Bible records it. If I will myself to a certain place, I am there, just as certain experts in your modern world cause an astral projection to take place. I use my whole body, however. I only behaved normally where necessity compelled it, but where there was no sense in physically wearing myself out, I merely willed myself to a point I was heading for.
"That was how I left this underworld in the first place, how I got to New York and back, how I met you so suddenly, how I disappeared in the lane. I thought, in the lane, that I was out of view, otherwise I would have been more careful."
"And why did you reseal the hole and make me look such a fool?"
"For a very good reason. When 1 returned to reseal it I also converted your welder back into a normal one. I wanted only the intelligent men, able to think for themselves. Purposely I made you contact Dr. Gore. I knew that if he found no trace of proof for your statements he'd probably go off in
a huff, but if he was really intelligent and scientific he'd finally come back to reconsider the matter of the metal itself. If he didn't, he wasn't worth having. My judgment was right, for he turned up. He brought others. That was why I said, save only those that deserve to be saved."

Rod sighed. "I begin to see. You knew all this would happen on the surface. You got what intelligent residue there was left on earth down here in safety. You destroy the rest before they destroy what intelligence has built up. You intend, when the cloud has passed, to take over the surface, together with those who will awaken in another year. That's it?"
"Exactly," she assented quietly.
"And all this you could have done alone," he whispered. "What need had you of me? An ordinary man?"
"I've told you!" she insisted earnestly. "I love you, Rod-love you deeply. I had to find a way to keep you and yet still carry out my plan. I did it by making you a pawn-but my proof of good faith lies in the fact that I gave you genius almost equal to mine. Here and there hypnotism helped you over the difficult spots, but in time you will grasp as much, and maybe more, than

I know. Even mind over matter; I will reveal that to you, too.
"Oh, Rod, don't you understand? That was my only reason-the reason why I held off an ordinary marriage. Ours can be so different, so much more complete. What I have done I have done for the future, for the good of a world that is to come. Surely I am entitled to some reward? Love? Happiness?"

Rod hesitated a moment, glanced at the still turning projector. He had a mental vision of human beings vanishing by the million as they marched to vainglorious war-human beings who had never done anything but impede the intellectuals, anyway.

Genius? He had that. The girl? She needed him, wanted him deeply. The past? It was done with. The mystery? It was solved, laid bare. The future? There lay promise-infinite promise once the cloud had passed.

He turned sharply, met the girl's steady blue eyes. He held forth his arms slowly.
"Phyllis," he murmured gently, as she came toward him. "Phyllis. . . . I shall always call you that. . . ."

The End

## PIDDLES OF SCIENCE

 The Mystery ofD) AROL TELLS OF AN ISLAND, LARGER THAN LIBYA AND ASIA MINOR COMBINED, WHICH LAY SOMEWHERE IN THE ATLANTIC, WEST OF THE PILLARS OF HERCULES,


OOO YEARS BEFORE SOLON ATLANTIS WAS A POWERFUL NATION. THE ATHENIANS ALONE WERE CREDITED WITH HAVING BEEN ABLE TO REPULSE THEM . ..

9


N HIS CRITIAS, PR 大RO TELLS OF THE WONDER CITIES OF ATLANTIS,OVERWHELMED BY THE SEA, SINKING INTO THE DEPTHS TO LEAVE ONLY A SHOAL OF MUD THAT HAMPERED NAVIGATION FOR MANY YEARS.WAS THIS ACCOUNT FACT OR FICTION ?

ATLANTIS, romantic of legendary land, is considered by many to be the product of imagination, but recent archeological excavations of a very ancient civilization in Créte seem to bear out the writings of Plato. According to him, Atlantis was a flourishing civilization, with great cities, marvelous science, and magnificent art. At its height of glory, it is supposed to have been overwhelmed by the Atlantic. Perhaps proof of the existence of Atlantis will some day be discovered in man's conquest of the ocean deeps. <br> \title{

## DAvis? <br> \title{ \section*{DAvis? <br> <br> DAN <br> <br> DAN Davíd V. Reed 

 Davíd V. Reed} ROGIR

I$N$ my work as a writer, I have often written fiction which I hoped might stir readers, perhaps even excite and startle them. I have written things that made me smile when I heard the old saw about truth being stranger than fiction. Today I don't know, because I don't know what the truth is.

Before you, reader, I lay down these following pages for your judgment. I received them from an old friend of mine, Roger Davis. Roger has often suggested story


Cold flame lieked out, and Cherry Street became a raging holocaust of fire

here, in the form of footnotes, the results of my investigation. They constitute practically my only contribution to these pages; I have divided the Ms. into sections and clarified the dialogue.

Let me add one thing. I have said I don't know what the truth is. But, if truth is that which corresponds to all other known facts, then you, reader, are about to begin a true story which has no parallel in man's experience.
D. V. R.

## CHAPTER I

## Roger Davis Begins His Story

IAM writing this account of the events of the past weeks from a little hotel in Hayman's Corners, Vermont. It was midnight an hour ago. The countryside is hushed and a summer breeze comes through my window. In all this peace, it is difficult to believe that a few miles from here, deep in the woods on the north shore of Lake Towanda, there still smoulder the embers that have burned my life away. I can still hear the thunder that shook the forest.

When I have finished these pages, I
will leave them sealed for delivery to you. I have addressed this to you for the sake of our old friendship, in spite of the fact that I know from every sensible point of view, you are the last person I should have sent this to. You are a fiction writer, and I have too many times aided you in the manufacture of your synthetic thrills. Because of that you may doubt me now. I beg you to believe me. At no time in my life have I ever wanted someone to believe me as much as I do now. Somehow, in these last hours, it seems terribly important for someone to know this and believe. I swear to you by everything holy that I am telling the truth.

But I must hurry. There are only a few brief hours until dawn, and then I must leave. . . .

TONIGHT makes a month and two days since it began. You may remember that I wrote you about the job I had taken with Jim Hendrix. When college let out for the summer, Jim went to New York, where he got a job as a barker for a sight-seeing bus. He would have taken anything, desperate as he was for money.

You know that I learned long ago that it was useless trying to get him to borrow from me, useless and stupid to offend his bitter pride and self-reliance. Here I was living easily on my inheritance, while he faced a relentless struggle to make ends meet. You know how uneven his temperament was, how he alternated between periods of hilarity and deepest gloom.

But for me there was nothing like his company; a continuation of those nights when we would sit awake in our dorm until morning, settling the world's ills as only young students can. When you graduated from school two years ago, Jim became my closest friend.

So when he got this job of his, I went
along and managed to get hired by the same company as a reserve driver. Even then, Jim could not hide his resentment, feeling that I had taken the job as a lark, while he hated it. And then the pendulum swung back again, and the old Jim was there, the Jim who could have no enemies, and we got along very well.

On this night that I speak of, we had been working together for some two weeks. We had our bus parked along Forty-fourth Street just a few feet off Broadway. It was a Saturday night, early in the evening, and the mad rush of a New York week-end was just beginning. Already the twilight sky blazed with neon, the roar and rumble of automobiles and taxis was a steadily increasing din, people from all over the city were beginning to stream into Times Square. I stood with Jim while he called out for customers. He made an unusual picture of a barker. Tall, blonde, with lean features and somewhat cold eyes, his cultured voice added to his restrained portrait of a Broadway go-getter.

Pretty soon we had a customer, an out-of-towner who looked much the worse for a few drinks. I took him to the bus and sat him down in the last row. About ten minutes later I escorted two ladies to the bus. But the drunk was now sitting in the front seat, singing to himself. That was all it took; the women glanced at him and executed a neat about-face, deaf to my pleas.
"Hey," I turned to the drunk, annoyed. "Why didn't you stay put? Come on now, back you go."
"Who me?" said the drunk, happily. "Not me. S'too crowded back there."

There wasn't a soul in the bus except him. "You'll have to go back," I said. He looked at me unhappily, his eyes sad.
"Don' make me sit with'm," he said.
"They scratch me."
"All right," I responded wearily. I had handled his kind before. "I'll make 'em stop scratching you." Holding on to him, I led our first patron back to his seat. "Where are they?" I said. "Point 'em out and I'll give 'em hell." The drunk nodded his head agreeably and pushed his index finger forward. Seemingly in mid-air, he met with an obstruction. He pulled his finger back and put it into his mouth, and he looked unhappy enough to cry.
A little startled by what I took to be his skill in pantomime, I put my hand where the drunk had indicated. To my complete bewilderment I felt a hard surface, rough and glassy like rock salt, right there in midair! Again I put my hand there, and again. There was no mistaking it. The seat looked empty, its black leather upholstery completely . . . but . . . there was an indentation in it . . . as if something"Hey, Jim!" I yelled, swallowing hard.

IN a minute, Jim was beside me. "Put your hand here," I motioned. He looked puzzled, but when he put his hand where I had pointed, the expression he wore was absolutely ludicrous. As I had done, he put his hand back again, and looked at the empty seat. Then, from the way his eyes slowly began to open in a fixed stare, I knew he had seen the indentation.

The drunk rose to his feet. "I'm goin' up front," he announced. "Don't like to have people hiding and scratching me." And down the aisle he reeled.

Jim and I just stood there, looking at each other. I could count the beads of sweat that were forming on his forehead. My throat was suddenly dry. Finally, Jim said to me in a whisper, "You felt it too, Roger?" I nodded, forcing myself to look back at the seat.
"Don't be alarmed," said Jim, his
voice quite hearty. "I hope you'll soon grow accustomed to it."
"What?" I jumped. But looking at Jim, and his mouth hanging open, I thought I must be going crazy. He was shaking his head slowly.
"No, you aren't going crazy," came a voice-and the voice was mine! But I hadn't said a word!
"I didn't say a single . . ." Jim began, but he couldn't go on.
"Of course you didn't. I said it." Jim's voice again! And his lips hadn't moved. But now we both turned to the back seat. The voices had come from there! "This is all very confusing," came Jim's voice from midair, "but it can be explained. Whenever I speak, unfortunately, it is in the voice that I last heard."
"Who are you?" I blurted at the air.
"A gentleman from Mars." My own voice answered.

That calm and simple statement took us a long time to comprehend.
"Why can't we see you?" I quavered finally, ready to accept anything.
"Please listen a moment. I arrived on your planet a short time ago, coming in a space ship from the Ganymede colony of Mars. I know nothing of your world, and I want to learn its ways, so I came to what appears to be your largest city. The strong gravity pull here fatigues me, and my few contacts with earthly people seems to, uh, perturb them somewhat. And since I want to see the city, what better way could I find than seeing it from one of these busses?"

Well, there it was-the most completely stupefying, insane situation imaginable: a man from Mars sitting invisible and composed in a sight-seeing bus on Broadway! All I could think of was, Lord, what an advertisement for the company! It is difficult to describe what I felt. One minute I was so exhil-
arated I wanted to shriek with laughter, the next I chained with such abject terror I could scarcely breathe. There was no denying the authenticity of the voices, our voices, we heard. You had to be there, to have felt that thing in air, to have heard it speak.
"And now, if you like," came that voice from mid-air, "I would have one of you move this vehicle. The other can stay here with me."

Beside me, Jim eased his stony fascination with a long sigh. His head wagged slowly as if he were floating in a dream world. "All right; Roger," he said, "take it. As far as I'm concerned, we've got capacity."

SO I took the bus to-of all placesChinatown, wandering off course a dozen times. By the time I parked in the Bowery near the tiny winding streets of the oriental quarter, Jim came and sat down beside me. His iron tension had relaxed, and his customarily worried face wore a charmed smile. "Like a story book and a science lecture rolled into one," he declared, breathlessly. "What a night!" Together we went to the rear.

Before I could say a word, the Martian spoke in Jim's voice. "Roger Davis, quiet your fears. I mean no harm to you." All I did was to clear my throat, but the Martian, continuing, spoke in $m y$ voice. It was like listening to an echo that had its own will. "In due time," he said, and I jumped, because I had been on the verge of asking him how he knew my thoughts. "You asked why you cannot see me. I am enclosed in an envelope of glass which has the property of curving light rays around whatever it contains. Your own civilization has succeeded in bending light . . . " The voice paused. "I see you are less the student of science than your friend is. You do not even
wonder how I am able to see, when all light rays curve around me. But if you will look here, an inch above the arm rest, you will see two small black dots. They are apertures in my envelope; some light enters there."
I looked and saw the dots, and an involuntary shudder swept through me. It was a peephole into nothing from my side, but on the other side, this invisible alien being was regarding us. There was something uncanny and evil about it. "I understand," came the soft voice. "We Martians have seen the Universe. To us a new life form is not odious."
"How can you read my mind?" I blurted. "It-it scares me."
"I stumbled across this little faculty of mine quite by accident. It seems that earthlings, using nervous energy for any purpose, create a tiny electrical discharge. Fortunately, the discharges of your mind impinge on me as intelligent thoughts and words. Otherwise, communication with you would have been a problem, for telepathy among Martians is unknown. . . . But I perceive you doubt my words. Why?"

I realized even at the time that the Martian's question was unnecessary. He was reading my mind and he knew. He knew that I was feeling as if something repellent was pawing me. It was as if something, far from reading my mind, was absorbing it. I didn't know why I doubted his words, why I felt a sudden chill pierce me, a deep foreboding for no coherent reason. But I knew that somehow this Martian knew my every thought, and even as I tried to reassure myself and think of something else, I knew that he knew that too, and that he knew that I knew that he knew -it was hopeless. I was playing poker with someone who knew every card I drew.

At that moment, we heard the drunk arguing with someone. That someone
proved to be Chuck Conners, the superintendent of the bus line. He stormed up the aisle. "You're fired, both of you!" he bellowed. "Where the hell do you come off to take out a wagon with one passenger in it, and that one a stew? I been standin' outside listenin' to you talkin' to yourselves, an' if you ain't drunk, you're crazy! Now get out!"

We walked out ahead of Conners with the drunk. As we stepped out of the bus, we heard Conners' voice inside, growling, "Get out of my way, you blubber-headed baboon." A second later, when Conners came tumbling out, a wild look in his eyes, we understood that it hadn't been Conners talking to himself, either.*

## CHAPTER II

## Hosts to the Martian

THAT was the way it began. Ridiculous? Sure it was, but I am telling it to you just the way it happened. It seemed funny as hell when it started, funny and unbelievable and a whale of a good time. Maybe that was why I couldn't see what was happening to Jim Hendrix and me-but that was later. As I said, we were having a good time.

For instance, there was that incident you may have read about, the one that happened in the Paramount Theatre. Jim and I went there with the Martian, buying three tickets as a sort of private

[^1]joke. That was the week they had the famous radio ventriloquist, making a public appearance. It wasn't difficult to arrange having the Martian throw back the ventriloquist's voice. It kept flitting out from everywhere, aisles, bal-conies-and though the audience enjoyed it tremendously, Jim and I got more of a kick out of it than anyone, because we knew the performer's consternation wasn't a fake. We just sat there and howled, watching the expression on the poor fellow's face. He declared the next day that he knew as much about it as the man in the moon. He was wrong by millions of miles, but he was warm at that.*

In spite of the fun, and the intensely interesting discourses we held with the Martian, I was possessed by uneasiness. On the third or fourth night of the Martian's stay with us, for inevitably he came to our place, I lay awake in bed quietly, unable to sleep. Constantly the question kept recurring: why was he, if it was a he, here? And the answer that I had gotten when I had thought of asking came back . . . "all in due time . . ." I knew my every doubt was known, and it gave me a sort of fatalistic freedom to think what I liked. After a time, when sheer mental fatigue had lulled me, and I had almost fallen asleep, in the corner of our room I saw lights! They were tiny flashes, barely visible, but they kept flashing off and on for several moments, and emanating from more than one spot.

[^2]The sight snapped me awake, and before I could think better of it, I sat up in bed. From that instant the lights stopped. What had it been? In that corner of the room our Martian guest was supposedly quartered. A possible explanation struck me even as I realized that if I was right, I had lost all hope of proving it-merely by thinking about it. And there was no way to stop my mind. In desperation, I took a large dose of sleeping tablets, and even then it was some time before I found sleep.

In the morning I made up my mind. Doggedly, because I knew my plans were not private, I went ahead. While looking over the humorous accounts of the occurrence at the Paramount in the newspapers, I said to the Martian, "How is it that you are able to speak as we do?"

That was when I began to notice what was happening to Jim. He looked up from his coffee, flustered. We had spoken a good deal about and with the Martian, but somehow we had never thought of asking that simple question, nor others which stemmed from it. The obvious lapse was even more surprising to Jim. "Yes, that is a question," he said, wrinkling his brow the way he always did when he was puzzled. "From what we know of Ganymede, or even Mars, there isn't atmosphere enough to carry a sound wave. I seem to recall you said there is no telepathy among Martians. Yet you must have a means of communication, and sound appears to be out."
"I speak because I have adapted my body to form a larynx. I have no specialized organs as you know them." The answer came soft and low now as it continued. "As to how I communicate with other Martians, the answer is simple: by light rays."

I almost jumped out of my skin at the
words. Jim didn't know what to make of my action, and I waited. The Martian spoke on. "My 'voice' is composed of waves of light, most of them of a frequency too low to affect the human eye."

More and more! The Martian was saying just the things I needed to confirm a suspicion now painfully obvious. But proof was no longer possible. My plan was useless.
"The one of you known as Roger Davis," came the voice, "is at a loss. He wanted to get an instrument called a camera, and with it, to make photographs of my speech."
"What?" said Jim, incredulous. "Is that so, Roger?" I nodded. "But what for?"
"Because the Martian's voice of light rays, if it falls into the ultra-violet range, will photograph," I answered. "I know enough science to know that."
"But why?" said Jim.
"Let me answer that, please," came Jim's voice. "To you, Jim Hendrix, the question of my communicating is an academic one. But to Roger Davis, it appears to be vital. Last night, when I believed he was asleep, he saw my voice. Sometimes, as he correctly surmised, it does leave its ordinary range for a wavelength visible to humans as brief flashes."
"Yes," I said, determined to see it through, "and if that is so-"
"You are quite right," interrupted the Martian. "It means that I am not alone. There are three Martians in this room."

THIS was Jim's time to jump. He lifted his six feet of spare frame out of his chair and sank back limply, his gaze traveling from me across the emptiness of the rest of the room. There was a peculiar lack of luster in his eyes then, as if he was sleepy. The voice
continued. "It occurred to Roger Davis that he could not prove his contention, for since we knew it, we could merely refrain from communicating whenever he used this camera. That I have admitted the presence of three of us here is a compliment to you. We are convinced by now that there is no danger here for us."
"Danger?" I said.
"Yes," said the Martian, but he answered using Jim's voice! "We came to this planet not knowing what to expect. We might have found a race that would have destroyed us. Your world is old enough to have evolved a civilization much higher than its present one. At least six times has mankind started the upward climb; the Egyptians, Phoenicians, Babylonians, Chinese, Greek, Roman-all have perished, their brief hour futilely spent, achieving no permanence. But knowing nothing in advance, we hid our number in invisibility, so that if the one known were destroyed, two would remain to give our signal of failure. For that reason, also, we adopted the plan of answering in the same voice that addressed us, since it gave no clue of our number or whereabouts of the other two. You have noticed that I am using what you consider the wrong voice at present; I can use any I choose."

It was a moment before I spoke again. "Why do you stay with us now? Why not cast off this invisible guise and make yourselves known? We are two obscure and inconsequential people. Why don't you go to our statesmen, our scientists?"
"We find there is little to choose among you."
"But why are you here?" I asked, groping vainly for a clue. "You seem to have a purpose in coming here. And this signal of failure-"
"All in due time."

What an ominous ring those words had. In spite of every evidence of sincerity on the part of the Martians, a feeling of impending doom overwhelmed me, a tormenting foreboding I could not shake off. Was what I took to be sincerity, I thought, merely an evidence of the Martians certainty that they could not now be hindered? Did they confirm my suspicions because they knew I could do nothing to alter their plans, whatever they were? Or could none alter them?
"You are quite right," said a Martian calmly, in my voice.

## CHAPTER III

## Amazing Developments

$\mathbf{F}^{\text {ROM that moment on, things began }}$ to move swiftly, and more important to me, from that day Jim Hendrix and I began to grow apart, in spite of everything I could do to heal the widening breach. Some of the things which I mention from here may be familiar to you from newspapers. But it is what you have not read, what you cannot, any more than the rest of the world, possibly imagine, that you will find here.

As I say, Jim and I started quarreling. Our first argument was over money. It had occurred to us that while we were having an experience which was magnificent and thrilling and incomparable, that at the same time, there was an embarrassing shortage of funds due to the loss of our jobs. Jim wouldn't touch my money and I had resolved to live on what I could earn while I was with him. This cruel, mat-ter-of-fact thought, striking Jim out of the clouds where he had been for days, angered him.

He paced the floor, his eyes burning with the old inner torture. "It isn't
right," he kept repeating, over and over. He seemed to be in the throes of an emotional upheaval. But there was a subtle difference in his attitude, and it was not lost on me. Where he had usually worried about himself, now he seemed to be dragging the whole world into it, the political system, economics, mankind.
In the midst of a long harangue, the door opened-and a pile of banknotes floated in through the air! Both of us gasped. "We trust that this is what you were so concerned about," came Jim's voice from mid-air.
"What is this?" Jim managed to say. We knew it was one of the Martians, but the money. . . .

This, you see, is the explanation of the disappearance of five thousand dollars from the Exchange Bank of Fifth Avenue, and the tellers who said that the money had just drifted away were not lying. The Martians had listened to


Jim and gotten him the money-simply by going into a bank and taking it! *
"Jim," I said, when we knew the answer, "it's got to go back."
But Jim's face had a peculiar expression on it, something that was halfway between poorly concealed satisfaction and a slow, brooding cunning. He stood there, fingering the crisp bills and shaking his head. I knew what he was thinking; how simple it was for me to say the money had to go back. It didn't mean much to me. I hadn't had to fight the world for every penny I owned. There was a far away look on Jim, and it frightened me.
"No," he said. That was all. He wanted to keep the money.

We argued for a while, until my bitterness penetrated his trancelike state. Finally, with a touch of malice, he held the money out to me. "All right," he said. "Take the money back. What are you going to say?"

The argument went no further. Here was a situation with no solution. Even mailing the money back would have pointed the finger of guilt at the tellers. But the incident, despite the possible harm that might come to innocent men, was the least of my worries. More disquieting than the theft were the somber undertones that accompanied it. Jim Hendrix had glimpsed, as I had, the

[^3]awful power that the Martians commanded. This was just a childish sample, an inadvertent, fumbling beginning.

F$\mathrm{F}^{\mathrm{OR}}$ the next week, there was comparative peace between Jim and myself. At his insistence, we left our walkup flat and moved into a luxurious apartment, and from there we made our trips about the city. Little by little we became intimate with the Martians. For the first time, we learned elementary things about them, things which as before, we had not thought of asking. I wondered about that, about the chances of the Martians being able not only to read minds, but to influence the way they thought.
What they told us, however, was unimportant. They ate prepared food pellets that they had brought with them; they breathed our atmosphere easily enough; they walked by means of pedicules that they formed from their viscuous tissues that seemed to have no definite shape. At least, there was no way of knowing if they had a shape or not; they never discarded the envelopes that shrouded them. And they never mentioned the whereabouts of their space ship.
Yet often, as we took them about the city and the surrounding country, they compared our Earth with their own world. They had not expected to find such open and beautiful lands where nature's bounty yielded unasked. In all this, whenever they spoke of their own arid plains, their dark and barren world whose surface was inhospitable to any life, I often shuddered at what I imagined was the proprietary tone of their voices. It made me feel as if I was a real estate agent for another world.
But when I spoke of this to Jim, when I was alone with him, he would laugh.
"Nonsense. Do you think they're planning on settling down here in their invisible pants, millions of miles from their own kind?" And then he snorted, adding, "It wouldn't be such a bad idea if one of them at least, did stay. Think what they could teach us."
"To what end?" I said. "I'm careful what I want to be taught."
Jim shrugged. "So is a savage when he meets a civilized person. He doesn't realize his own ignorance, his inability to judge."

That was the way he spoke those days. There was no meeting of our minds. There seldom had been, with his dour outlook on life, but usually the fruits of our divergent opinions had been long discussions. Now Jim didn't argue any more. When I asked a question, he answered, and his manner indicated that he had grown impatient with discussion. Sometimes, listening to him, I wondered if it was really Jim Hendrix speaking. His lips would be moving, but the thoughts seemed alien . . . otherworldly . . .
Then came the day that we went to the slums. Going there had been Jim's idea. He addressed the Martians while apparently speaking to me. Almost from the first, I was startled by what he was saying. "Here, in utter squalor and misery, a million beings called human manage to exist. These hovels are their homes, and in them breed enough disease germs to ravage a continent. The government has tried to wipe them out and set up new houses, but a government is slow, and the owners of the property jealously guard it, waiting for a chance to profiteer on human suffering." He went on like that, and then in the heart of that miserable district, he paused and delivered an eloquent, scorchingly bitter speech.
Suddenly I felt a numbing cold seize me, and my breath almost froze in my
throat. In front of me, a muddy puddle of water became ice at my feet while I watched. Then, from beside me somewhere, a small streak of flame hissed out, thin as a pencil, and it played directly on the houses before which we stood. Instantly, a mass of flames roared into life. The cold stopped and an inferno of crackling, leaping fire began to devour the old houses.

Moments later, safe at a corner where we had fled, Jim and I watched the fire engines pouring into the district. I remember catching Jim's eye, and seeing there the glance of comprehension. In my utter confusion, it wasn't until later that it struck me, more violently than any physical blow. On all sides there was panic. Whole blocks were going up in flames. No one knew how many people were trapped in those houses. I saw men and women hurling themselves from the smoke and fire, clutching children, dying on the pavements. It was a scene of indescribable anguish, each horrible moment more sickening than the one before. There was death on every hand, innocent death of infants and mothers and fathers and invalids. The hand of Death had risen to smash hundreds. It seemed as if the world was filled with the great wailing that rose up, as if the soul of that wretched, gutted neighborhood had, in dying, groaned an immense, unutterable, unforgettable groan.

WE were home when I pounded the truth out of Jim. For more terrible than all of it, I felt that Jim knew. He was as sick as I, but there was that

[^4]look about him again. I grabbed him and pulled him close to me. "Tell me what you know about this!" I shouted, feeling every nerve in me tense to the breaking point, my head spinning dizzily.
"The Martians did it," he gasped.
I smashed him across the face. "You knew!" I screamed. "You knew!" Jim was my best friend, but in my fury I might have killed him then. I held his throat in my hands-and then it was as if my strength had been sucked from me, and a great weakness overcame me. I fell to the floor, crying like a baby.

After a time, when I had calmed, I heard the whole story. There was a fiendish twist to it, for the explanation came from a Martian in Jim's voice. ". . . the evil had to be removed. What I did was to draw together all the heat in the atmosphere, concentrate it, and discharge it at once. . . ."

I heard little else of the story. They had drawn the heat out of the air! Was this so very different from the thoughts they drew from human minds, from the strength I had felt leave me a short while before-from the change in Jim, where his whole being was seemingly being drawn from him. "This little faculty of mine . . . " the Martian had said, speaking of his ability to read minds. They were like sponges, inconceivably powerful sponges, absorbing what they wanted!

I remembered how I had felt the first time we met them. And in their own words, they had no organs, no shape; they formed them. They had known of our past civilizations, though we were the first humans they had encountered, and we had said not a word about it. They had known simply by pulling it out of my mind, because there was nothing I knew, let alone consciously thought, which they could not get. And so they had gotten Jim, knowing that
in that poor distraught boy there was fertile ground for their work. Jim was theirs; he had been certain he understood the fires even before he had known.
Slowly I realized that Jim himself was now speaking to me, his face pale and bloodless. "You're taking it too hard. Why don't you look at it from a broad view? It was a hellhole, and the people who lived there were lost. Their deaths were merciful releases from horrible lives. Where they died, a new world will spring up. . . ."
"Couldn't you wait until you had that new world to give them?" I said, dully. "Did you have to kill them first?"
He started answering me before he caught the import of my words. "One can't build on a rotten foundation," he began, and then, halting, he added, "but $I$ didn't do it. I didn't kill anyone." He was troubled at the thought, and he looked to the empty air beside him as if for help.
"You agree with it," I said, hopelessly. "Your words were an invitation to destruction."
"Yes," came Jim's voice. Jim wasn't speaking. "His approach was direct. It is the only answer."
"But we are human!" I cried. "I don't expect you to understand that, with your mind of $a-a-$-"
"A sponge?" came the taunting answer from mid-air.
"A sponge!" I hurled. "A damnable sponge from another world! We know our world and its problems. What does this mass murder do? There is suffering enough. . . ."
"There will be an end to suffering soon." It was Jim himself who spoke now. Feverishly I thought how little difference it made whether he spoke or was spoken for. "There has been muddling enough. If man is still a child, he must be taught. And he will be
taught!" Jim rose as he spoke. The color had come back to him, there was something strong and resolute about him. He had no more misgivings about his own part in the tragedy. There was no more wavering in him. He seemed to be in a terrible state somewhere between sleep and waking, and his eyes were on an unseen horizon.
"You're mad!" I shouted, lunging for him.

Halfway toward him, I fell to the floor. Something had taken the power out of my legs. I was helpless. It seemed as if an eternity passed while I lay there, listening to voices debate over my life, and all the voices were Jim's. Then I heard, "No, he is my friend," and realizing that Jim had said it, and with those words saved my life, I wanted to die. Then, bit by bit, the world receded and I floated down into the black vault of a bottomless abyss.

## CHAPTER IV

## Martian Misdeeds

$I^{T}$T was toward evening when I regained consciousness. I was alone. Weakly I rose to my feet and stumbled to the table. A strange headline on a newspaper there gripped my attention. COUNCILMAN VELDON DIES ON FLOOR OF CHAMBER LEADING REVOLT AGAINST CHAIRMAN. I looked to the dateline, unbelieving. A week had passed! Impossible! *

Quickly I glanced through the story. Councilman Veldon had been struck down by heart disease while fighting against the Chairman of the Council, who for some reason of his own had tried to disband the session of the Council, which had run extraordinarily long

[^5]in a fierce taxation fight. The Chairman, Myron Clark, was quoted as denying having said any of the things attributed to him-in spite of the undeniable evidence of a packed Chamber gallery.*
Do you remember that? Of course you do. But did it strike you that there was a deadly parallel between this headline story and a humorous account of a ventriloquist who had also denied saying things attributed to him, an account published a few weeks previous? Was this ghastly similarity an accident? But what could one make of a Chairman denying the statements that so many had heard him make?

I heard the door of the apartment open, and turning, I saw Jim come in. His face was serious as he sat down on the other side of the table. There was something hurried about him. He was obviously a man with many things on his mind, and pressed for time. It

[^6]was an effort for him to compose himself sufficiently to sit quietly while he spoke to me.
"I see you've guessed," he said, pointing to the newspaper. "You've been unconscious more than a week. That was five days ago." He turned his eyes away from me as he continued. "Next time I will be unable to save you. They want you out of the way."
"Out of the way-for what?" I whispered.

Jim rose and began to pace the floor, his words coming slowly, and then sometimes pouring from him. "Roger, the Martians are emissaries from their world. In a sense, they aren't even Martians. Eons ago, they were forced to leave Mars when the planet grew cold and lifeless. There was no planet near them with life enough to offer a haven for all, save ours, and they feared us because we were an older world, and as they thought, advanced enough to annihilate them. So they scattered about the universe in colonies. Always through the ages, wherever they were, whether deep under the icy fastness of Ganymede where these three are from or on the surface of the mighty seas of Uranus, they dreamed of the time when the Martians would be a united race again. Like most dreams, it seemed destined never to be realized.
"And then, from these dreamers rose three courageous souls, willing to risk their lives scouring the universe for a new place. They came here to determine once and for all whether it was possible for the Martian race to unite on our planet. So they came, as they said, fearfully. They found here an atmosphere they can breathe by thinning it a bit, the food they require, and in addition, vast elemental resources. And no danger."

He paused there and looked at me carefully. "I don't know how this will
hit you, Roger," he said, "but the truth of the matter is that they have decided to come here. They intend to send for the others, perhaps five hundred million of them. They're going to do things for us, make our world over, eliminate the weaklings, the unfit. . . ."
"NO," I said, in a stupor, "no, no." I couldn't understand what he was telling me. I sat there pounding the table with my fist, hammering the newspaper, trying to comprehend his insane words. This was August, 1938. The country was harvesting crops, getting ready for a football season, preparing to vote for new Congressmen soon. What was this talk of Martians coming from space to take over our world? I realized then that I had been talking out loud, for Jim answered me.
"They're going to take it over, as you put it," he said. "They'll make a great people of us." There was a fierce light in his eyes as he spoke, pointing to the newspaper. "This was a mistake. I warned them against it."
"So they killed Councilman Veldon?"
"The city had been standing on its head through these stormy sessions. One of the Martians, using the Chairman's voice, tried to end the bickering and disband the Council. A revolt broke out. They thought killing the leader would end it. It didn't."
"Of course it didn't! Did they think they'd find submission?"
"There will have to be submission sooner or later," said Jim, gravely. "The Martians can do what they like with us. But if we submit, they'll make us great. And you and I, Roger, we'll be mighty and rich and honored!"
"Puppet dictators of the real dictators! Great, perhaps, in our treachery, rich in the power bought with our people's blood, and honored by no one, not by thieves or murderers or traitors who
would be noblemen by comparison."
"You're wrong," Jim said firmly. "What do I care for the lives of those unfit to live? History will be my judge!"
"And if history proves you wrong?"
"It won't." There was finality in his words. "Three Martians are not enough to do what we plan. We want to avoid these half-measures. They're going out to bring others and I'm going with them. Make your choice. Do you want to come? You can't remain behind . . . and live."
"Jim," I said, "can't you see what you're helping them to do? This world of ours is far from perfect, but it's ours to improve as we want, as we can. It never has been easy. Mankind progresses slowly, slips back, but goes on again. And he can go on, if only he has his liberty. No tyrant has ever been able to take away liberty for long. But these Martians, aliens, unable to understand humans and human frailty, what do we mean to them? They can't feel emotion or compassion. If they come, the world will have as its master a tyrant it can never overcome, a race whose power-"
"Power!" Jim echoed. "Power!" That word alone had found a responsive chord in him. Standing there, looking at me, he was a man apart from all mankind. The world that had misused him, as he had often claimed, had through an unbelievable arrangement of circumstances, bred in him a monster to destroy it. Jim Hendrix, my best friend, had been warped, pitifully mis-shapen into this semblance of a human being who would trade a world for his own gain. There was no conscience left in him. He knew so little of it that he thought to appease mine by babbling about bettering the world, while for him, only the lust for might remained.

" $D^{0}$O you want to come with me?" Jim had grown impatient. "You know the alternative."
"My death."
"Yes." There was scarcely any regret in his voice as he faced me vibrant and strong. I looked about me, and if I had found a weapon, I would have attacked him again before the Martians could stop me. But I didn't know where they were. "You needn't be afraid to speak," said Jim, mistaking the reason for my looking around. "We're alone." Then, as I rose quickly and stepped toward him, he pulled out a revolver. "Alone except for this," he said, waving the blunt end of the gun at me. "For the last time. With me or against me?"
There was only one answer. My death, little as it meant to me, would accomplish nothing. I had to play for time, to go along and pray that somewhere my chance would come. The Martians had been afraid of danger; they were not invulnerable. I nodded my resignation.
"Good," said Jim. He smiled at me grimly. "I have a deep affection for you," he added, "in spite of the fact that you're playing for time."

His divining words so startled me that I jumped, and Jim's laugh filled the room. Was he too able to read my mind? But no, it must have been an evident game I was playing, even to a madman. For he was mad; we would have had a learned name for him in college . . . and wildly, a possible solution flashed across my mind. Somewhere, somehow, I would have this last chance. But I needed time-a few hours.
"Where are we going?" I asked.
"Out into space for three days to give a signal."
"Into space? But how?"
"A space ship. How else?" Jim re-
plied sarcastically.
A space ship. It was a story. It wasn't real. "Where is it?" I heard myself asking from the depths of that unreal world.
Jim Hendrix laughed. "Why?"
"I must have a few hours to myself," I said. "I want to put my estate in order. Something may go wrong." I held my breath. If Jim could read my thoughts, or if there was a Martian present somewhere-
He laughed again. "Nothing will go wrong. But you can settle that precious estate of yours. Meet me at midnight at Grand Central." He stepped toward the door, then held back. "I hope you appreciate the fact that any mention of this will land you securely in an observation ward. And we won't have any trouble finding you when we return." He was still laughing when he left.

## CHAPTER $V$

## A Signal in Space

PROFESSOR WORTH looked at me
peculiarly, fingering his white moustache. "I don't think I understand you, Davis," he said, perplexed. "Is this a practical joke?"
"Did you ever know me to joke when I was a student in your classes? There isn't time to explain," I answered wearily. "It took me so long to find you, even knowing that you were to be at the hospital for the summer recess. You've got to believe me. I'm in dead earnest. If the money isn't-".
"No, no," he interjected, hastily. "You think money will do everything. It isn't the money at all." He furrowed his great brow and his deep black eyes were troubled. "You say that I've got to follow these instructions of yours implicitly?"
"Word for word as I've written them
here. One slip. . . ." I grinned wryly. "More than you know depends on this."
"I'll do it." Professor Worth pressed a desk button.
"Don't forget," I said. "When it's over, you're to follow me to Grand Central and go where I go. From then on. . . ."
"I wish you'd finish your sentences," said Worth, with a shrug. "You make it sound so dramatic. Too damned dramatic." His assistant entered. I forced a laugh and sat back.

IREMEMBER of what followed only that I found myself in a cab entering the Terminal when it was almost midnight. Jim was waiting for me. As we went through the gates, I noticed that he gave the station conductor three tickets for the two of us. Only too well did I realize why he laughed at the conductor's question; there was a Martian with us, and Jim was continuing the little joke we had started weeks before. I remember that I had a slight negative reaction, knowing there was a Martian with us, and then it passed.
On the train, Jim said to me, "I see you've come around a bit since we parted."

Sincerely, I answered, "It isn't easy, but I'm beginning to agree."
Jim smiled. "Our friend here says you're telling the truth. I'd advise you to continue."

At that moment, I saw Professor Worth come striding down the train. He nodded icily to Jim and me, and continued on.
"Did you see who that was?" Jim exclaimed. "Old man Worth. And didn't he appear cordial!"
"Maybe he's in some kind of trouble," I ventured. "He was supposed to be at Bellevue all summer, and here he is, heading north."

And so passed the two most critical moments of the weeks that had gone by-but I didn't know it! Every word I said was the truth. I spoke to Jim honestly, and the Martian was not wrong when he told Jim so. When Professor Worth appeared, I was as surprised as Jim, and as unable to explain his stand-offish attitude.

FROM then on we rode in comparative silence. Hours later, we got off the train at a little station in Hayman's Corners, Vermont. Soon Jim hired a car and we set off.

On the densely wooded northern shore of Lake Towanda, several miles from town, Jim stopped the car, obviously under directions which I could not hear, as I had not heard previous things the Martian had said to Jim. We got out of the car and began to make our way into the woods. In another few minutes we came on a clearing.

To one side of the clearing, well hidden under piles of shrubs and branches, was a ship. There is no other word for it. It was perhaps forty feet long and it tapered at both ends from a maximum height and width of twenty feet. That was all it was, a fat cigar made of a pale green metal that reflected hardly any light from the brilliant moon above.
"Welcome," my own voice called out from the clearing. "We see that the reluctant one has finally decided in his own favor." It may seem odd to you when I say that I was glad to hear those other Martians, and glad to see the ship. But it is the truth.
In what seemed to be the unbroken continuity of the ship's side, a small, triangular door opened, and falling, it formed a sort of gangplank. It was my first clue to the size of the Martians; they couldn't have been very large and used that small door with comfort. From the interior of the ship, a pleasantly dif-
fused light streamed out into the already graying night. Stepping over the branches, eagerly I entered the ship.

The whole interior was a confusing arrangement of machinery. There seemed hardly an inch unoccupied by wheels, levers, lights that gave off a luminescent glow, dials, meters, tubes. Jim echoed my own burst of admiration and amazement, Little as I understood it, it was plainly the work of engineers with a staggering amount of ability-if it was real. I always had to remind myself it was real; there was Jim and I, and voices which were ours and weren't ours, and a ship that might have been a dream.
"It isn't as complicated as it looks," said one of the Martians. "If one pressed down the blue lever on your right, and then in quick succession that whole board of keys, the ship would of itself tilt upward and then rise. It would go perhaps a million miles into space on that operation alone. We had planned to have everything ready in case of failure. One of us, surviving, could have brought the ship out far enough to give the signal of failure, and the quest would have been abandoned."
"And what was that signal?" Although the voice was the same, I saw that Jim had spoken.
"Once in space, we need all three to operate the ship," came the answer. "But one would be enough to throw in this large switch here. This one is green, and the natural color of the ship would have blazed like a miniature star in space, signaling our failure. But the one we will use tomorrow night, when we are scheduled to leave, is this red one beside it. Red for success, red to call other Martians. But I see that Mr. Davis pays us the compliment of marveling at our engineering."
And marveling I was, at their ingenuity, in spite of the fact that Jim, his
body trembling at the thought, said to me, "All this you would have lost for a nebulous thing called freedom, for millions unfit for it. This is the way emperors dreamed of living!"
"Now," I heard my voice say, "you earthlings must leave. There remains work for us here. Outside you can make your beds and sleep, if your bodies require it."

At mention of the word sleep, something in me stirred, and I felt for the first time a heavy fatigue sweep over me. "I'd like to go back to town," I said wearily. "I'm much too tired to sleep out in the open. I'll take the car and stay at the hotel."

There was silence for a moment, as the Martians evidently probed my mind. "Quite so," came the words, at length. "Return early:"
With the voice of a Martian guiding, I started back to the car. In the morning light I saw that an immense swath had been cut through the thick woods, leading to the clearing. That was where the ship had come, leaving a trail. It must have come down in the dead of night, and making no noise, to have remained unmolested even in the mountains.

THE sun beat down warmly when I drove into town. For some reason, I inquired for the most expensive hotel in town. The man who answered me laughed. "Ain't but one," he said, "an' that's no hotel. I guess you'll have to go to Constable Jefferies' place right over there."

Constable Harry Jefferies proved to be a gaunt, kindly New Englander. With pleasant ceremoniousness, he asked me to sign an old register. It was fortunate he did so, for there on the page stood the name Harrison Worth. Immediately, remembrance flooded my brain, and hurriedly I found

Professor Worth's room and went in.
I saw at once he hadn't slept a wink. "Davis, what is this-"

I cut him off. "Did your assistant drive my car up here?" I asked.
"I phoned New York the minute I sneaked off the train. Your car will be here in several hours." I breathed easier. Worth regarded me speculatively. "I've half a mind to go to the police," he said. "My assistant phoned me back an hour ago. One of the cases in your car opened. He says it's full of carefully packed dynamite."
"True." I returned his gaze.
"I know it's true," said the old man in a voice of steel. "You don't have to say so as if you were revealing something. And if you're being honest, tell me what this is all about."

There was no way out of it. The old Professor was looking at me in silence, worried, sleepless. He had gone to great trouble to help me. But how could I begin? "Professor Worth," I said, "I'll tell you. But promise me one thing: whether you believe me or not, you'll continue helping me."
"I'll give no such promise," he said slowly. "But tell me, and perhaps I'll do it in spite of disbelieving you."

So I told him, as briefly as I could, and when I had finished, he rose and walked to the window. The warm summer sun came slanting through to play on the wrinkles engraved on his face.
"If you are lying," he said, after a time, "I have just heard the most complex and magnificent lie of all time."
"Don't you see?" I said. "That was why I asked you to hypnotize me, to submerge my feelings and make me believe the things I wrote down for you. I had to take that chance."
"These . . . these Martians of yours, who absorb minds-why couldn't they go deep enough to reach the things I buried in your subconscious?"
"I don't know," I said simply. "I gambled. I remembered that I had first seen them speak to each other when I was half asleep. Evidently there were states of mind which did not bring on a reaction in them. So I was willing to take a gamble. If they could read only the surface, the conscious mind, I was safe. If not, I just wouldn't have been here now."
"But what a delicate and ingenious chain," the Professor muttered to himself. "It might have miscarried at any point. First, I made you lose your objections to their plan; then I had you believe in another. Third, I had you forget ever having seen me at the hospital. Fourth, all thought of a violent plan of your own was removed from your mind. Fifth, I gave you two posthypnotic suggestions: one, at the mention of the word sleep, you were to seek out the most expensive hotel in town; the other, when you saw my name on the register, all this was to return to your mind. . . ." He was speaking to himself. "Dear Lord," I heard him say, "let him be lying. Let this be a joke played on a gullible old man. . . ."

IWENT to him and took his arm. His aged eyes pierced me, and then he gripped my hand. "What if they followed you?" he asked.
"We wouldn't be alive now. They never doubted what they read in my mind." But despite myself, I turned slowly and surveyed the room, half expecting at any moment to hear my own voice materializing from nowhere.

I turned back to the Professor. "What next?" he said, quietly. "Where did you get the dynamite, and for what?"
"I got it figured out," I said. "Remember you said yesterday that I believed money could do everything. I'm going to attach a concussion cap, load it in my pockets and go back there a
living bomb. And you're going to set me off."
"How?" the old man whispered.
"First, you'll make me forget all this. Second, you'll tell me I have no pockets, and I won't have them-until I need them. When I hear the words that express their readiness to leave, let me immediately take the dynamite out of my pockets and throw it."
"But it means your death."
"Perhaps."
"And what of your friend Jim Hendrix? Is he too, to die?"
"No." I hadn't thought of that. I was ready to die because it was the only answer. But Jim had to leave here alive. In time this would be but a feeble memory to him, half believed. He would recover and forget. He had to live. "Let me first send him to the car on the road," I said. "He'll be safe there."

The old man nodded. "Soon my assistant will be here with your car," he said. Then he motioned me to the table, and we had breakfast brought up, all the while speaking to each other as if we hadn't a care in the world.

It was late in the afternoon when I left town, remembering only that I had slept for several hours, resting uneventfully in a little hotel. As I drove through the calm countryside with its little houses perched near the road, waving back at people, I had no misgivings about the momentous journey upon which I was soon to embark. I believed I was going, that I was in agreement with Jim at last.

Soon I came to a bend in the road that seemed familiar and I stopped the car. A moment later, Jim came crashing through the underbrush that lined the road.
"You're late," he said, guiding me back. His face was glistening with perspiration, and he hardly glanced at
me. There were too many things on his mind. Already, I could see, he was living years ahead, envisioning the things that were to come after this incredible day.

The Martian ship lay where it had been the night before. Its pale sheen glittered in the sun, mingling its green with gold. There was no sign of life around it, and save for Jim and myself, the clearing was deserted and silent. Lackadaisically, I sat down under a tree. Then, near my feet, I saw the grass pressed down, and Jim turning to one side as if he were listening to someone.
"I can't understand you at all," he turned back to me, a pleased smile on his face. "The way you carried on at the beginning, and now look at you. I'm trembling with anticipation, excitement, call it what you like-and you're just sitting there. And it isn't just an act," he added, grimly, "I know that."
"You're in pretty thick with our Martian friends," I said.

He nodded and a flush mounted his face. "This is only the beginning, the very beginning," he said, looking past me as if I weren't there. "You don't know anything of the plans we made during the time you were unconscious back in New York. We traveled around then . . ." His voice died away and he had to clench his fists to control himself. I smiled, understanding the way he felt. We sat together quietly, saying nothing.

SOME time later, the triangular door in the space ship opened, and as if it had been a signal, Jim went into the woods and came out with a large paper box. "Food," he announced. "I had to go down the road to a house and buy it. Funny, isn't it, the way it slipped my mind that we'd have to eat?" I helped him gather dry brush for a fire.

Then, fumbling through his trousers, Jim called, "Got a match?"

For a split instant I stood there looking at him blankly. Now as I recall the moment, I realize how near the end I was. But at the time, all I did was stare at Jim. I couldn't look for a match-because I didn't remember having any pockets!
"Well, look, will you?" said Jim, regarding me. Then, suddenly I chilled and a brittle, frosted leaf floated down from the tree overhead. A little streak of flame burst from the air near the pile of brush, and the fire was started! Startled for an instant, Jim began to laugh the next minute, understanding that the Martian had performed the slight menial task for him. "Matchless would be a better word for it." And I laughed with him.

We were halfway through the meal when Jim, in the midst of our rather jolly conversation, happened to say, "Well, in a few hours it'll be night. We're almost ready to start."

For a reason I didn't understand at the time, my mind was all at once in utter confusion. My hands shot into my jacket pockets and stayed there, then slowly withdrew. What had happened, as I now see it, was that Jim had expressed the thought that was supposed to start me-but he had qualified it with an almostl I was neither here nor there!
"What's the matter?" said Jim. "You almost choked on your food."
"There's . . . something for you . . . in the car," I replied, lamely, beginning to react. "A letter for you . . ."
"Letter? Here?"
"It came in the city. I-I forgot to tell you."
"Where in the car is it?" said Jim, wondering what it was all about.
"On the seat."
"On the seat?" he echoed.

It was utter nonsense, you see. What I was saying didn't make sense, and I knew it as I said it, but I had to say something, anything that would get Jim away. For, from the moment he had mentioned starting, he had begun a cycle which would be completed in a few moments.

Perplexed, Jim started for the car. At that precise instant, from near the space ship his own voice called to him. "Don't be gone for any length of time. We are ready to leave."

And in the same instant, having heard the key words again, with Jim out of the way, I jumped to my feet, plunged my hands in my pockets and hurled the dynamite! All I remember of that horrible second is Jim's face staring at me as my arm swung down. He had turned back as the voice called, and started back a step or two-and he was almost directly in line with my aim!

The ground trembled at my feet, huge columns of dust and smoke rose, and an immense oak came tumbling down. That is my last recollection of the scene: the topmost branches of the oak spinning toward me, and my falling in their midst.

M Y eyes opened on twilight. Not far away a fire was burning in the brush and licking against the trunk of the fallen oak. Then I became aware of a hand near me, and moving to one side, I saw Jim lying there. His face was covered with blood-blood that was slowly seeping from his chest. He had been torn apart by the blast. As I struggled to rise, I saw that I was no longer under the oak that had fallen on me. Someone had taken me out of the path of the fire.

I bent over Jim. He was dying. What little breath there was left in him came fitfully, and his face was contorted in pain. "Jim!" I cried, suddenly re-
membering everything. "You were at the car!"

Feebly, his head rolled to one side and he grimaced. The words would not come. Then suddenly I heard his voice, quite plainly, but looking at him, I knew it was the voice of a Martian!
"Your plan miscarried, admirable as it was."
"You live?" I cried.
"For a few moments more, perhaps. You were fortunate. All three of us were together."
"Fortunate!" I said bitterly, looking down at Jim.
"More than you know. We absorbed most of the shock, but it was enough to kill us. As for Jim Hendrix, had he survived, his life would have been worthless, as yours is now. In dying, while he fought for breath, he struggled to pull you clear of the fire. We never understood the relationship you call friendship, but now we know that to an earthling it is an admirable weakness. It is too bad it was wasted."

The words were coming more slowly, and they were calm, studied.
"It wasn't wasted," I answered. "You're gone, dead!"
"Death means nothing. Had we lived, we would have taken part in the remaking of your world. For us to die in the cause of the Martian nation is enough. You could not understand our plans. Even now you are thinking we were brutal, emotionless. No matter. Your world will be remade by others of our nation."

There was no rancor, no hatred in that voice. It came from the air, from a being I had never seen, like a brooding wind, filled only with a deep contempt. In their own way, these Martians had been creatures of lofty intellect. There was no revenge in them.
"No revenge," agreed the voice. "I am the last of the three, and I can kill
you where you stand, even as I am disintegrating like the two who went before me. But there is no need to kill you. You must live to regret, and regret one day you will, when you see our miracles. For one thing you did not know. Our vessel stands here undamaged, but I am too weak to reach it. But we foresaw the possibility of our being unable to take it back into space. A bad landing would have disabled us even though there was safety here. When another of your earth days passes without any signal from us, a second expedition will take flight. Mars is not without its pioneers."
Jim was stirring, his lips parted. His hand lifted weakly on mine. His eyes opened for the last time, clear and shining. "Sorry," he whispered. His hand fell from mine, clutching at the earth he had been so ready to betray, and under which he would be buried. I wept like a child. A greater price than I had been willing to pay had been taken from me and I had failed.
I sat there until darkness came on, and then wearily I rose. "Are you alive?" I called out.

There was no answer. Jim's voice had been his own at the last. Somewhere nearby the Martian who had spoken to me had joined his fellows, disintegrating himself, leaving no vestige on this alien world. . . .

$I^{T}$T wasn't until I was driving back to this little Vermont village, numb with despair, that I thought of it. Out of my daze and disinterestedness in life, came that thought which had kept me going before. There were others.

When I got back to the hotel, Constable Jefferies asked me a lot of questions. The blast of the dynamite had been heard for miles, and a party would set out in the morning. My clothes were torn, my hands and face cut and
bleeding. I put him off. Professor Worth had left in the afternoon. I went up to this room of mine and began to write this account.

It is almost dawn now; I heard a rooster crow. The moon is already paling in the sky. These hours the thought has taken form.

There is only one thing to do. The Martian ship lies intact, ready to start its voyage to the heavens at a touch. I remember the directions. I am going back to the woods. There I will bury Jim . And then I will take the ship aloft, to give the signal of failure.
(NOTE: I have included here, at the end of the Ms., the rest of the corroborating notes. They follow. D.V.R.)

From the Hayman's Corners Free Press, August 27, 1938.

MYSTERY BLAST EXCITES COUNTY
Fresb Grave Found at Site
Police Hunt Roger Davis
Shortly before nine o'clock yesterday evening, a severe explosion on the north shore of Lake Towanda, in the woods owned by Amy Cargill, shook the countryside and was heard for miles. This morning, Constable Jeffries, leading a party, located the site of the blast. Over a hundred trees had been felled there. They looked more as if a bammer had knocked them over, a pretty big hammer to be sure, than an explosion caused by dynamite, as the Constable says. The ground around one portion of a clearing looked scorched, but there weren't any signs of a large fire.
To add to the mystery, a freshly dug grave was found on the spot. In it was the body of a man believed to have been James J. Hendrix, a college student. He bad been seen in town by Tom Ellery, who hired out a car to bim. The car was found in the road nearby. Also, Mrs. Stevens, who lives nearby, claimed to bave sold the dead man some groceries during the day, but nobody believes Mrs. Stevens since she identified the governor's son as a bank robber two years ago.

Constable Jefiries declared tbat the hunt was on for anotber student named Roger Davis. This Davis spent the night under the Constable's nose, but the Constable doesn't believe in disturbing guests. He still has the autograph of the sus-
pected killer in his register, as well as anotber name about which he is keeping mum. He is not saying a word about a large blue roadster parked in his stable. Said roadster.was driven up yesterday by another mystery man, and it is supposed to be full of dynamite. Meanwhile the investigation goes on merrily, wbile the Constable wonders if it is legal to fill out the death certificate for James J. Hendrix.

From the New Haven Courier, August 30, 1938.
Professor Harrison Worth was visited today by Constable Harry Jefferies of Hayman's Corners, Vermont, in the Constable's effort to secure additional information about two of the Professor's former students who figured as principals in a murder mystery in tbe Constable's precincts. By a coincidence, the Professor was present at the same hotel where the suspected murderer, Roger Davis, spent the night. The murdered man was identified as James J. Hendrix, a friend of the man believed to have caused his death.
After emerging from Professor Worth's home, Constable Jefferies made the following statement: "I believe that both Davis and Hendrix came to Hayman's Corners knowing that Professor Worth was to be there. We can only guess at their reasons, but both boys were known to have been addicted to violent arguments, often staying up all night quarreling while at college. When Davis failed to interest the Professor in whatever be bad come for, a friend of Davis brougbt bis car, filled with dynamite. Then Davis returned to kill Hendrix. As Professor Wortb refused to divulge the conversation he held with Davis, I realize that these conjectures must remain just that. We have nothing to go on in determining the immediate motive of the murder, but the hunt will go on and the killer brought to justice."

From the New York Times, August 28, 1938.
Astronomers from several sections of the country reported that a peculiar brilliance manifested itself in the heavens early yesterday morning. The radiance, believed to bave been several million miles from eartb, lasted too long to be a comet, and was of an unusual deep green in color. It was seen for an hour.

Here my presentation of this Ms. ends. I will add only that it has lain waiting for my return from Europe for several months. In all that time, not a sign, not a vestige has appeared of Roger Davis. It is as if he had disappeared from the face of the earth.

Where is Roger Davis?
The End.


Bullets whined as Wobb Temple urged her across the quaking ground to the space ship

# THECITYOF OBLIVION 

## By BRADNER BUCKNER

## Webb Temple went to Athasia to escape the memory of a thousand accusing dead, and then battled to remember and justify himself

## CHAPTER I Lunar Exile

BROODING with all the bitterness of a tortured soul, Webb Temple sat on the edge of the wharf barely out of reach of the gigantic waves and watched the bobbing lights of a Ganymedian supply ship wallowing away in the night sea . . . away from the destruction he had travelled millions of miles to embrace.
Around him was the heavy silence of a deserted waterfront, broken only by the roar of the giant combers mounting and receding as the Sea of Lothar sent
them battering at the base of the volcanic island. The young scientist's haggard face was a study in emotion as he watched those lights dropping down behind the distant horizon. Then with a sigh he turned a leonine head to glance up the hill behind him where hundreds of grotesque structures clung to the sides of steep, winding streets. A sardonic smile turned the corners of his fine mouth a little as between the crash of the heavy seas he heard the sounds of music and reckless laughter. He shuddered at the ugliness of the island city, flinched under the biting rasp of the harsh, ghastly voices rising from the throats of men doomed like himself.
They came here to Athasia to forget and to die under the influence of the

gaseous fumes that still seeped from the extinct volcano's crater, gasses embracing elements that induced gradual, permanent loss of memory and a slow, not unkind process of death. But there were times when newcomers had to resort to quicker forgetfulness brought with them in bottles from Earth, or imported from neighboring planets.

Tonight, if Temple had been a drinking man, he would have been up on the hill carousing in one of the cafes. But this night he was remembering things he had traversed a vast void of space to forget.

It had been four months now since he had come to Athasia on the second largest of Jupiter's moons, Ganymede. Earthians called Athasia "the city where men forget," and Temple's days were a level march of unimportant hours. Through them he groped impatiently toward the complete Nirvana that would finally embrace his brilliant, mercilessly active mind and completely sever him from the torture he sought to escape.

It was a different life, this dreamy existence on Ganymede, from the one the scientist had known on earth. No long nights in the laboratory, measuring sound impulses, testing for deviations; no plotting of charts and battling to change stubborn curves. There was nothing here but the effort to forget while in the nostrils was the elusive odor with the power of bringing permanent forgetfulness and . . . the final, peaceful end of all things.

There were thousands here who had attained the mental state the young physicist coveted, and many more who had gone the limit. He saw everywhere those who were awaiting the finish, drifting about in a state of complete mental freedom.

But for Webb Temple, oblivion was slow in coming . . . too slow for a man
with a thousand murders troubling his soul. . . .

He leaned back against a piling and stared beyond the shacks to the Upper City of Athasia. He brooded over the thought that he might have left his Earthian troubles behind him a lot faster had he taken up his abode there in that luxurious section of the city of living death. Of the three districts of the island, the upper one closer to the deadening fumes drifting from the crater was the wealthiest and the most carefree.

Earthmen with troubles and money built fine structures of obsidian up there and found oblivion quickly. Below was the less pretentious belt where a man with a few thousand dollars could live out his span of life a little longer, breathing the narcotic gasses filtering past the upper crust. Here was the middle class.

And below that, cringing just above the battering waves of the Sea of Lothar, was the district that accepted any misfit who could get across the black void of space to the satellite. Murderer, criminal, or coward, a man was welcome anywhere on Athasia, and they came in droves; but here the city's dregs seemed to settle like foul residue in a refining basin.

A squalid, precarious place of filth and violence, men forgot more slowly here and died more swiftly. And here, because he had no money and no desire for companionship, Webb Temple drifted from day to day, hoping to forget that he was the most hated man on two worlds.

NOW, with a muttered oath, he shoved his long, bony frame up and fumbled for a cigarette. He found one-his last. Smoking broodingly, he stalked along the deserted quay, past black doors and brilliant, noisy cafes.

There was a hollowness to his stomach that had been there a long time; but one thing men never forgot here was that money was king.

Then suddenly Temple was spinning about as a quartet of men burst from a lighted shop to pile against him. Ragged nerves dragged his lips back in a snarl. He clutched a convenient throat and snapped, "What's the idea, fellow? If it's trouble you want-"

Four pieces of human flotsam regarded him in mild surprise. The strangling one gasped, "Space ship comin' in! Just been sighted."
"Better come along and watch her land," one of the others grinned, as Temple's grasp fell away. "Keep you out of trouble. You're drunk."

Webb watched them somberly as they rushed away, in the direction of the landing float. Disgust lay darkly in his eyes. Like a bunch of vultures, the newcomers always rushed down to watch a new batch of soul-weary men arrive.

But even as he swung bitterly away, a column of brilliance pierced the black sky to focus on the broad landing float. A twinkling chain of lights that were illuminated space-ship ports began swiftly to settle. From its landing tubes burst flat mushrooms of vivid green fire, on which the torpedo-shaped vessel seemed to float to its landing. All over the landing barge red and green lights winked on.

Temple experienced a sudden pang in his chest. Homesickness, though he would not admit the emotion was that, started his feet toward the scene. And with each reluctant step memories grew stronger-bitter memories of a dreadful blunder, of a night of horrible death, of a girlhe soon found himself in the small
crowd of low-class Athasians behind the guard-chain on the float. Yet he knew he had no desire to meet anyone from Earth.

Bitterly he detested the world that had exiled him, and every man and woman on it. But in spite of himself, a quick stimulus of excitement lifted him as the passenger hatch swung wide. The circle of light was almost instantly broken by a figure that moved into the aperture.

A murmur of excitement stirred the onlookers, to break suddenly into a sullen mutter. For the passenger who had stepped to the planking was one of the only class barred from the island-a woman!

The faces of the onlookers grew blacker with the girl's confident advance toward the passageway they thronged. Resentment whipped their tempers raw. There were few of them whose exodus from Earth had not been in some way connected with a woman. It had not been chance that ruled the troublesome sex from Athasia.

A single hurried glance into the faces around him told Webb that real danger menaced the girl. At the same instant the girl seemed to realize her position.

She stopped, and one hand went slowly to her throat. In the glare of landing lights her hair glistened like gold, and her mouth appeared like a small red seal in the pallor of her face. She shrank back a little.

It was then that a drunken Athasian ahead of Temple shouted, "From where I shtand I c'n see trouble for Athasia! We got all the women we want now, and they ain't the kind no man will fight over! Who'll help me throw 'er in the ship and send her back?"

The answer was a burst of shouting that exploded like a bomb. The drunk crawled over the chain and led a weaving advance on the girl. All down the
line more vengeful men piled over the barricade.

Without warning a lean, swift form knifed through the first line of runners to catapult upon the leader from the rear. They crashed heavily to the planks, arms and legs frantically lashing about. As the swart visage of the half-crazed Athasian loomed before Webb, he drove a savage fist to the man's jaw. The sodden sound of the blow held a grim finality that slack features bore out.

Without a backward look, the physicist went racing toward the girl, his keen gray eyes glittering. Fear for the girl was like a goad in his back, urging his muscles to impossible speed.

It was plain to him that death was what the men held out to the girl. For he knew now it was a private ship, and she had come alone.

He pounded to a halt before the blonde visitor, seized her arm and commenced dragging her with him to the edge of the float. "Run, you little fool!" he panted. "They mean business!"

His eyes had scarcely recorded a feature of the girl's face, but now a sharp cry pulled his gaze down.
"Webb!" her voice came throatily. "Webb! Do men forget here this soon?".

Crystals of ice prickled along the frigid channels of Webb's veins. His shoulders wilted. Then: "Alinel" Only that one word tumbled from his lips, but in it was a lifetime of despair.

For all the grief he had fought to escape had come rushing back at him from the depths of the girl's eyes.

## CHAPTER II

## Plea from a Doomed World

S
ECONDS pulsed through Temple while his eyes went over the cameo-
like face, strained, now, and frightened. His own eyes were haggard under heavy brows, his lips drawn.

The drumming approach of running feet aroused him barely in time. Almost brutally he swept the dainty figure into his arms. Muscles tempered by riding and hiking bore him swiftly along with his double burden. Past the small space-ship they flashed, and on toward the sheer drop of the float's edge.
The crowd of pursuers wavered and found a stumbling halt as their quarry dropped from sight. In the sudden hush came a far-off splash.
Men looked in awe at each other, and slowly, shame-facedly, turned back. Jumping from a wharf, to be crushed against the pilings by breakers, was a favorite means of suicide among such of Athasia's as became impatient for oblivion. But this time it had been murder, and they knew it-

After the blinding shock of icy water faded into a pervasive ache, Webb began clawing up from the midnight depths. At the same time he struck seaward, as he guessed it must lie.
The relentless drag of the waves could be felt as a tangible force already. Hopelessly he realized the fight to escape death against the sea-wall had started.

Now they burst from the water, two tiny, struggling bodies bobbing on the breaker line. Instantly Aline broke away from him, gliding into the water with strong, graceful strokes.

She eluded Webb's frantic grasp. "Save yourself!" she panted. "I can swim as well as you!"

Temple's voice was nearly lost beneath the thunder of a breaker. "Then swim away!" he snarled. "It'll be your last chance. Why in Heaven's name did you come here, Aline?"
"To bring you back!" she flung over
her shoulder at him.
Amazement dragged the man's arms down. "You can say that, after-"

Suddenly he was laughing, a wild sound that mounted harshly above the triumphant moan of the sea. He laughed until a mouthful of water strangled his shouts, and then his long body writhed over and he lashed past the girl and fought toward the open sea.
He swam like a man pursued by devils, but it was a hopeless effort. The demon he fought to escape was the one in his mind. And already it had carried him back to the past he dreaded.

BLACKEST of all his regrets was remembrance of his deadly vibra-tion-director, the death machine that had caused him to seek this pseudodeath he lived in. From the muzzle of the small weapon he had been able to project a rhythmic stream of supervibrations that liquefied any living organism's cell tissue almost instantly.

Then, on the eve of publicizing his invention, Webb had conceived his violent suspicion of the inhabitants of the small Martian colony at which he was a department head. As one of the physicists assigned to the experimental Martian colony in North America, he had never got over his first distrust of the pygmy race.

For three years, now, ten thousand of the gnome-like creatures had dwelt in a modernistic city on a high, dry plateau of New Mexico, that most nearly reproduced their own climate. They lived in houses constructed like their own homes on Mars, and worshiped their idols in a huge, closelyguarded underground cathedral, the interior of which no Earthman had ever seen.

During the day the Martians collaborated with men like Webb, comparing the philosophies, arts, and sciences of
the two planets.
Temple had his first suspicion when he chanced to observe a group of "worshipers" carrying pieces of machinery into the mysterious cathedral! Here was foundation for his distrust! Like a slow poison eating into his vitals, the idea spread through his brain that the temple was no more than . . . a munitions factory.

Further observations strengthened his belief. In a fever of apprehension, he told his fears to Max Radic, Head of Works at the colony-only to receive a scornful denunciation. He told Aline, but her reaction was to beg him to take a vacation from his work.

Angrily Webb had decided on a coup. Late one night, armed with his murderous little vibration director, he had crept unseen down to the bottom level of the cathedral.

The scene that burst on his vision, as he slipped through a door, was one that froze him with a bone-wracking chill. The place was a vast storehouse of Martian arms, a factory in which great machines chattered busily and thousands of workmen labored at top speed on strange weapons such as he had never seen! The god who was being worshiped here was War!

Now Webb had the proof he needed to wake civilization up!

But Fate had other plans. Before the scientist could move, a guard saw him and raised his gun. A terrific explosion rocked him as a great hole was torn in the floor nearby. Breathlessly Temple fought off the horde of workers and guards that rushed him, while death thundered all about. Only their hasty aiming saved him from death by the horribly destructive weapons.

Then his tubular vibrator had come up, stopping them by the dozen, by the score, by the hundred. There were a thousand dead when he stumbled out.

A shudder racked Webb Temple's limbs as he recalled the things that ensued.

In an hour he had come back with Radic and a hundred soldiers. Eagerly he led them to the scene of carnage . . . to stop in horror, as he found no trace of the munitions! Nothing remained but a thousand dead Martian priests and worshipers in their ceremonial garments, lying in grotesque heaps before their idols. . . .

Disaster moved swiftly after that. Bereft of proof, almost crazy with selfdoubt and confusion, he tried to answer the questions of a prejudiced court.

Radic was savage in his demands for execution. Webb escaped on a plea of temporary insanity. But it was a hostile world to which he emerged. Employers laughed in his face-and had him thrown out. Aline was coldly aloof, puzzled.

Within a few weeks, Webb Temple had become one more misfit for Athasia.

HIS head pivoted, now, as the girl slid in beside him. Her own smooth stroke was a match for his more powerful efforts. Anger rushed through his face.
"Save your breath," he gasped, before she could speak. "I washed my hands of Earth when I left. Nothing you can say can change what's happened. If we ever hit dry land, we're going to refuel your ship and get you away."

Aline's chin was trembling with cold. "But you were right, Webb!" she exclaimed. "I went in the temple, too! They'd shut off the floor their guns destroyed and moved the bodies up one level. And I'm sure Radic is helping them!"

Webb could only stare.
"I can't be positive, but if I'm right
-Webb, you've got to come back! They're ready to move any minute! When they do, only vibration-projectors can stop them, and you alone can make them. Will you come back, to show us how?"

Webb's derisive scowl melted. Suddenly he knew he had been wanting to return for a long time. A new elation leaped to life in him at the thought of fighting his way back. But for the moment he forced down the impulse to agree.
"This isn't the time to decide that," he told her. "Right now we've got to get out of here. The only way I know is the jetty a half-mile upshore. . . ." "

He squinted at a distant sprinkling of lights, where a spit of rocks probed out into the sea. "I'll challenge that statement of yours that you can swim as well as I ," he flashed suddenly. "Here's your chance to prove it!"

Without warning, he ducked his head into the water and sprang ahead. His strong overhand stroke placed an immediate gap between them that Aline had to fight to keep from growing larger.

Webb's muscles ran with liquid fire, it seemed, when they cleared the landing float and escaped momentarily the fierce drag of the inshore tide. He settled into a distance-eating crawl.

Then for long minutes they were struggling through mountainous rollers, wallowing up one side and scooting down the other, never more than twen-ty-five feet between them. The thrill of a race was in their faces, but Webb was not fooling himself. Death was the foremost contender in this contest.

From a long, steady pull ahead, he glanced back to find the breach was much greater. Anxiety hit him solidly. He treaded water until Aline came up, gasping and barely able to move her arms. But she was still grinning
bravely, and tried to resist when Webb's arm slipped about her shaking form.
"Hundred yards more," he murmured. "Can't stop us now!"
It seemed an eternity later that they saw jagged black rocks shoving through the foam of the combers just ahead of them. Lights dotted the length of the reef, strung along on tall standards. Webb watched the waves break for a while, without saying anything. His eyes were on a ledge the highest breakers barely reached.

At last he met Aline's questioning face. "Better now?" he asked.
"Fit as a fiddle," she smiled.
Webb said tightly, "Good. Start swimming when I do, and keep it up until you feel rocks under you."
The water seemed to swell beneath them, flinging them ever higher on the breaker's crest, bearing them helplessly toward the jetty. Suddenly the wave broke.

A roaring was in Temple's ears, and he felt himself buffeted by currents and cross currents. He stiffened himself against the shredding contact with cruel lava rock. Something brushed his face, and instinctively he seized it, to find his hand around Aline's ankle.

Then a great sense of relief flooded him as the water surged back, letting them down with hardly a jar upon the ledge! Somehow Webb found strength to raise the helpless girl in his arms and stagger through knee-deep water to shore. They lay side by side on the sand for a long time, before either could move or speak.

## CHAPTER III

## The Four Who Waited

$I^{7}$T was a dazzling flash of light that finally brought Webb from his stupor, to gaze at a second incoming space ship. A little cry from Aline told
him the girl had seen it, too.
Cutiously, he scanned her tense features. "It's not a ghost you're seeing," he said reassuringly. "Just another space-ship."

She had come to her feet with a rush. "But don't you recognize the insignia . . . three green lights in a triangle, a red one in the center?"

Webb frowned. "Green lightsthat's a government ship. And the tri-angle-"
"-means it's from the Martian colony. And only one man is entitled to the red light!"
"Radic!" The word burst from Webb's lips. "Aline, you weren't serious about suspecting him, of all the men at the colony-?"

She turned to face him squarely. "The night I was in the temple I heard a voice I'll swear was his. And another thing made me doubt him. Since you left, he's constantly pumped me for all I knew about your invention. He says the government needs it. But I won-der-which government did he mean?"
Thoughts crawled like ants through Webb Temple's brain. Had another man's treachery been shackled onto him? Could the Head of Works be the real brain behind the Martian plan? But if Radic were innocent, why had he followed Aline here-if not to stop him from returning?
Webb was unconscious that his features had frozen into a gray mask of craft. His words slipped like slivers of steel into the silence. "We've got to get off the streets. By now every womanhating fool on the island will be searching for us, on the chance we got out. I have a friend in the upper district that might be loyal enough, or fool enough, to shelter us, if we can get to his place. Though, if I know Max Radic, he'll rout out every rat in Athasia looking for us. At least it's worth the try!

Jan Marlan will help us if anyone will!"
The space ship had fallen from their view by the time they gained the dark section of high, misshapen buildings of the lower district. Clutching Aline's hand, Webb plunged into a twisting route that soon had the girl protesting they had lost their way miles back. But soon the tenement-like structures blended into attractive, low-roofed buildings whose opalescent pink walls glowed faintly from inner lights.

Without warning Webb dragged the girl with him behind a street corner. To her questioning glance he answered by pointing across the street. Two squat, deformed men in yellow flying suits were hurrying along beside a larger man dressed in ordinary Earthian garments. "Martian" was written all over the flyers.
"The bullet-headed fellow was the drunk who led the rush on you," he whispered. "An ex-convict named Baron. Evidently Radic knows the right sort of men to track us down. Most of us down-and-outers will stick together, but Baron would sell out his own mother, if the price was right."

They hurried in a new direction for a few steep blocks, to halt even more suddenly as a fresh searching party loomed up. Webb literally dragged Aline into an alley, then rushed her along toward the other end. All of a sudden the far end was blocked by the form of a man who stopped, peered in, and moved on.

Webb's steps dragged to a stop. "Blocked!" he murmured. "The streets are full of 'em. We'll have to try the subways."

They hunched there in the semidarkness until the clatter of searchers' feet faded out. Wordlessly, Webb slipped out of the alley and moved to the center of the street, to haul at a ring set in an iron cover. With the revealing of a round hole in the street, he mo-
tioned the girl to jump in.
She followed his directions without hesitation. When the iron cover was replaced again they found the roughhewn tunnel was faintly illuminated by irregular streaks of phosphorescence that ribbed the ceiling. "The workmen paint the stuff on as they work along," he explained. "This is a newer tunnel, I imagine, so we've still got a little illumination. Lord help us if it doesn't run all the way to the top!"

But the light held out.

AFTER an hour of steep clambering over debris, the tunnel, one of a maze of them that took care of rains which might otherwise wash half the buildings into the sea, tailed out into a deep trench that presumably caught the run-off from the upper slopes.

Just above them, as they climbed to the lip of the viaduct, was the jagged rim of the crater. The odor of gas was stronger up here, bringing tears to the eyes of them both. Webb caught a breath, as he fancied he could even feel a slight rumble far below their feet. It was not the first time he had wondered just how extinct Athasia's ancient volcano was.
Now Aline caught at his arm as she stared across the narrow strip of lava to where a magnificent building reared from the slope. "It's lovely!" she breathed. "Why, it's like a Moorish palace done in crystal!"

Webb nodded slowly, his eyes on the graceful towers that soared from the gently rounded bulk of the home. The place gleamed like a gigantic golden diamond. Constructed of amber volcanic glass, the material sparkled to every stray beam of light that kindled on the myriad chips of gold within it. The slender, arched windows which ran from top to bottom were of clear glass that constantly shifted from one pastel
tint to another.
"Yes, Jan has a nice place up here," Webb said speculatively. He grinned at her swift look of astonishment. "In fact, it might not be a bad idea to get an inside look at it, before someone sees us!"

Webb skirted the big front door, seeking a smaller portal at the side of the mansion. Here a semi-spherical bulge in the wall allowed space $\mathrm{fc}:$ the room that he knew was Jan Marlan's study. His soft knock won a quick response.

Framed in the rectangle provided by the sliding back of a door was the figure of the wealthiest man on Athasia. Admiration sparkled in the girl's eyes. Jan Marlan had more than his money to attract women.

Something over forty, the mature vigor of a man in his prime slumbered in his muscular limbs. His chest and shoulders were those of a heavyweight boxer. Ruddy cheeks and an incisive pair of brown eyes spoke of rugged health. Yet there lay a brooding look of dissatisfaction behind his good-natured features.

Hurriedly he grasped Webb's hand. "Temple!" he exclaimed. "I was beginning to think there was a quarantine sign on my door, from the way you avoid it."
"Waterfront people don't get around a great deal," the young scientist smiled briefly. "You're alone, Jan?"

Marlan stood aside, indicated the rich interior of the small room. "And with all evening to entertain you in . . ." he smiled.
"Not entertain-protect is the word," Webb clipped. Hurriedly he introduced Aline, then warned tersely, "There's a lot of trouble not far behind us. If we come into your place, you're as like as not to have very unpleasant visitors looking for us, and
you won't be any too popular yourself if they find us here. So unless you're a bigger fool than I think, Jan, you'll send us on right now."

The smile left Marlan's lips. "I seem to remember a courageous fool who helped me fight off a dozen thugs one night not so long ago," he cut in. "I've waited for a chance to pay back that favor, Temple. This looks like my opportunity."

Quietly he waited for them to come in, and then the door slipped back against the night.

Before a square of glowing red tile in one wall, Webb and Aline stood and let the warmth of the electro-resistance hearth seep through their wet clothes and chilled bodies. A puzzled frown tugged through the girl's face at the strange furnishings.

On the walls were brightly-colored prints exactly like those seen in any college of surgery. Every portion of the anatomy of the human body was to be found gracing the walls. Striated and non-striated muscles formed a group of tastefully-framed pictures.

In glass cases she saw arrays of gleaming surgical instruments. A defunct sterilizer squatted on a small taboret. Set into the wall were a dozen book cases filled with leather-bound books on materia medica.

Contrasting acutely with priceless vases and objects d'art, the surgical display brought a question to the girl's lips. "You're a practicing physician, Dr. Marlan?" she wanted to know.

Jan Marlan looked blankly at her, and slowly a frown grew on his features. "Doctor Marlan," he repeated. "That -that sounds familiar, somehow. No, I'm just one of Athasia's idlers, I'm afraid." But in his dark eyes the effort to remember was still apparent.

Webb's hand had closed firmly on Aline's wrist. "Jan just collects these
things for something to do," he explàined, and his eyes warned her that the subject was closed. The time was not right to tell her of a great surgeon who had attempted a difficult operation on his own daughter, nor of the scalpel that hàd slipped. . . .

"I'M going back to Earth, Jan," Webb said suddenly. He was aware of the girl's quick smile of relief. "A lot of what I'm going to say, you may not understand. You've been here a long time, now. Anyway, the situation is this. A terrible menace is about to be loosed on Earth, a horror that we can't imagine because it goes beyond our experience of tragedy. The man who is fostering it is in Athasia right now! If he finds us, Earth is doomed!"

Jan passed a hand over his brow. "Earth. Earth . . . I can't quite remember the place. A city, Temple?"
"A world more than twice as big as the one we live on," Webb said levelly. "That's why I mustn't be stopped from returning." Now his eyes pinched, darted toward the door as a faint sound aroused his suspicion. The sound did not come again. "Baron is helping him find me," he concluded significantly.

Marlan's strong features clouded darkly. "He hates you, doesn't he?" he said harshly. "He hasn't forgotten the night you broke his nose helping me fight off his gang of renegades! Well, let him come-"

Webb shook his head. "We're a match for Baron, but not for Radic and his Martians. They'd kill us on sight. But you can help us, Jan, by letting me use your rocket ship to get away. If we can reach Ila, across the Sea of Lothar, we can get a space ship and beat him back."
"Of course you can use it," Marlan agreed hastily. "In fact, the whole thing sounds so exciting I'm tempted to
go along. But being only a two-passenger "
Then all eyes were racing to the door, as a sudden pounding echoed inside the room.

Aline pressed close against Webb. His eyes shot to Marlan's tense brown features.
"Is there a back way to your ship?" he demanded. "If that's Radic we can get started while he searches the place."

The Athasian seemed to shake off the spell of inaction. Pivoting swiftly, he crossed to a bookcase and slid it down the wall a few feet, revealing a dark passage. "Thank the Ganymedians for this," he flashed grimly. "Their old reservoir is right under the building. This tunnel is part of the system. The control room is a couple of hundred feet down the passage. Wait there until I come for you."

The book case thudded into place behind them. With unaccustomed panic stirring in him, Webb hurried down the slope behind the girl.

A sharp turn brought them up against an iron-bound door which stood slightly ajar. It required the pressure of Webb's shoulder to thrust the thick portal back. His groping palm settled on a switch in the wall to the right of the jamb, to bring dazzling light into the room.

They hurried inside. All around them were ancient, dusty valves and gauges. Huge pipes descended from the ceiling to pass through the floor throughout the length of one wall. An odor of dampness, of earth and mold, hung coldly in the air.
Curiously, Webb glanced behind them. In the next moment a startled gasp was wrung from his throat. Pressed back against the wall, malevolent eyes gleaming, were four men who watched them in silence.
Two of them were Martians. A third
was the traitor, Baron. The last man was Max Radic.

## CHAPTER IV

## A Job for Baron

WHEN the silence had become a deep wall between them, the renegade government man's voice shattered it.
"Ganymede wasn't far enough, Temple," his deep tone came tauntingly. "This thing is too big to run away from. It wasn't worth trying."

Webb's jaw jutted defiantly as he let his gaze rove over Radic's powerful form. His broad shoulders bulged the coat of his spun-copper uniform. Heavily thewed legs were revealed by his breeches and boots. His face was sallow and pouched, yet in the tawny eyes that blazed at either side of a Roman nose there was a hint of ruthless purpose. The menace in his Lugershaped pistol was plain.
"Hell itself wouldn't be far enough from your kind," he returned. "I thought I'd seen all the rottenness Earth had to offer when I left. Hearing about you shows me I was wrong."

Baron swaggered from his place by an ugly Martian dwarf. "Another place you were wrong was in thinking you could hide any place on the island from me. I've hoisted many a drink to this situation, fella. Tonight you made it easy for me. I thought you'd be smarter than to run to your playboy friend when you struck trouble."

Webb said scornfully, "Didn't take you two long to get together, did it, Baron? Well, it takes a buzzard to find the latest in carrion." His eyes flashed past the bullet-headed Athasian to his erstwhile chief's face once more. "What've you got in mind, Radic?"
Radic smiled, a yellow-fanged leer
that puckered his whole face. He gestured scornfully with the massive Martian weapon his fat paw clutched. "These guns are great - when you aren't in a hurry. We can blow a hole as big as a washtub in six inches of steel with a single shot. But Yor and Ayo, here, have been a little uneasy ever since you massacred a thousand of their countrymen. An invention like that could be very disconcerting to an army about to take a continent the size of North America.
"Naturally, you won't be allowed to return to Earth. The high office has also asked me to get a rough sketch of the vibration pistol before I return."
"Then you'll be here a long time!" Aline said suddenly. "Webb will never give those plans to anyone but a War Department official."

Webb was not unconscious of the scowls that claimed the sickly-white features of the Martians, but he ignored the growing menace. His hand found its way about the girl's waist.
"You've heard my orders, Radic," he announced. "It's my guess that they won't be changed."

Baron canted his head to one side as he dragged a green tube similar to a fountain pen from his pocket. Savagery and eagerness distorted his wide, thick lips. "I say they will," he smirked, "and it ain't a guess! One drop of . . ."
"Shut up!"
Radic whirled, shot a piercing look through the door. "Marlan's coming!" he hissed. "You two turn your backs to the door and stand by those gauges. Maybe these guns aren't like yours, but -don't be too smart for your own good, Temple."

T HE hasty tramp of Marlan's boots came closer. Webb ground his teeth
against the impulse to cry out a warnning to him. But it could accomplish nothing more than the deaths of all three of them. A groan of despair was on his lips when the surgeon's hearty tones broke the taut silence.
"Wasted effort, my friends!" he was laughing. "It was nobody more dangerous than a neighbor who is continually imagining the crater is about to erupt again! Now for the ship, and then-Good Lord, Temple, you look like a ghost!"
"I'm sorry, Jan. I told you you'd send us on, if you were smart."

Slowly the physician followed his friend's eyes. He took quiet inventory of the quartet that was now moving in on him. Something like a smile was in his eyes when he finally spoke. "It looks like they missed you, Baron, when they cleaned the vermin out of my cellars last month. Or did you crawl out of the woodwork?"
In one motion the barrel-shaped renegade had catapulted forward to smash a balled fist into the other's mouth. Webb caught the stubby neck in both hands before he could leap on the struggling form of the fallen man.

Something crashed down on his head with stunning force. Radic raised the gun for a second blow as Webb reeled aside. His arm froze there, heavy with menace, when the young scientist made no move to attack him. Then he was speaking in a hurried cadence.
"Don't make the same mistake again, any of you. Back up against the pipes and stay there while Yor and Ayo lash your hands behind you. Don't forget I can end this whole business with one shot, and the Martian army won't be a lot worse off."

Defeat came down like a stifling fog over Webb Temple. The cruel bite of the thin metal cords with which the grunting Martian pygmies were lashing
their hands could not equal the agony in his mind.

He knew that in this subterranean room the fate of Earth would be decided in the next few minutes. Memories rose before him, scenes of beautiful countrysides and the weird loveliness of deserts. His throat constricted with the recollection of gay Christmas seasons, of the laughter and joy he had known. All that happiness, even the right to enjoy the beauty of Nature, would be blasted, unless a miracle took place.
One thing could save Earth . . . his invention. The plans to that deadly weapon were recorded nowhere but in his mind. Max Radic would either tear that knowledge from him or he would leave three mutilated corpses in this chamber when he left-
Now Yor's frog-face split into a wicked caricature of humor. His yellow hand fell across the bosom of Aline's dress, to clutch a handful of the material. In his queer, gobbling speech, he asked: "De woman, Roddic?"
$\mathbf{R}^{2}$
ADIC shook his head. "Not yet. Take the men's shirts off. Then it's the girl, if we need more persuasion."

Yor's face fell back into sinister lines. His cold, skinny fingers ripped Webb's coat and shirt off, while Ayo removed Jan's upper clothing.
"You've had experience in this sort of thing, have you, Baron?" Radic asked.
The squat, renegade Athasian had exposed a stubby point at one end of the green cylinder he held. His black eyes seemed to film over. "Somewhere -yes. I don't exactly recollect where, but my memory's still good on how I done it! It was on the order of this!"
Abruptly he had slid in close to Webb. Aline's scream sheared the tension. She
strained wildly against the bond that held her against the thick pipe, sobbing the terror that had been building up for hours. Baron stopped, startled.
Somehow Webb caught the terrified girl's eyes. In the moment in which their glances met and held, he managed to convey a message to her. A fire of craft and confidence that he did not feel glowed in his eyes. Gradually her sobbing quieted. She seemed to wait for the surprise move he had promised in that glance.

Again Baron raised the pointed object. His thick lips thinned whitely over his snag teeth. Suddenly he jabbed the metal against the physicist's flesh.

The breath clogged in Webb's throat, but no cry escaped him. Head still erect, his gaze slanted down as the shining gold point traced a circle on his skin. The pain was slight, for Baron had not broken the skin. A circle of glowing phosphorescence commenced burning there.

It was not until he stepped back that Webb first felt the force of the fiendish torture. It was as though a red hot, jagged rim of glass had been shoved against his chest and was now revolving. Faster it spun, driving waves of pain all through his breast. A blistering fire blazed up under the skin.
"De odder?" Yor asked eagerly, pointing at Marlan.

For a moment remorse triumphed over pain as Webb watched Radic nod. But he masked the emotion, knowing the slightest betrayal of weakness would be the fissure in which the renegade's wedge would be driven.

Jan Marlan pursed his lips and watched calmly as the burning symbol grew under Baron's trembling pen. "Artistic sort of Inquisitioner, isn't he?" he grinned at Temple.

They both laughed . . . two men
who knew they must make some sound or scream.
So for ten minutes they carried on a deception that must soon end. Their chests were streaked with fiery marks by the time Baron turned angrily to Radic.
"Then it's the girl we got to work on," he snapped. "If I give these birds any more the stuff will paralyze 'em permanently; and then where'll you be?"

Radic scowled blackly. "Go ahead."
With eager, sickening gulping noises, Yor and Ayo pounced on the girl's cringing form. The tear-brimmed blue eyes sought Webb's over their hunched backs. Marlan looked steadily at the younger man. He seemed to be asking himself which Webb would value higher-a world that had renounced him, or a girl he loved. . . .

Then Webb was shouting insanely. "Let her alone, you damned maniacs! You've done enough. I hope you rot for this, Radic! Give-give me your damned pencil and paper and-and let me rest a minute. I can't even think, jerking like this!"

They cut him loose and let him fall to the floor. Paper and a pencil were placed before him. Radic freed the others and moved over to the shaking, sobbing form on the floor. Swearing softly, he bent over him. Then the roar, the snap and snarl of a dynamo gone wild, filled the room.

Temple had a gun!

$R$ADIC went reeling back with a bleeding face, grabbing for the pistol no longer there. The Martians croaked frantically as they fought their own weapons from under their belts. Baron lunged at Webb. A moment later the upper part of his torso disappeared, blasted into atoms by the force-bolt. Before another shot could be fired, Webb had shattered the dome-light.

Through the blackness, the roar and thunder of force-pistols, he stumbled to find Aline still against the pipe. Marlan loomed up, whispered huskily, "Follow the line of pipes to the door! Then straight through the next room and I'll get you out!"

But they had scarcely found the door when new light flooded the place. An oil line, broken by a bolt, had caught fire! Yor and Ayo whirled in the direction Radic indicated.
"Help me close the door!" Jan gasped that from the side of his mouth. "It's stone. Maybe it will stop them long enough!"

Three blasting concussions had slammed through the narrowing aperture to dig deep niches in the far wall by the time the massive door, nearly two feet thick, had thundered closed. Marlan shot the bars in place.

Instantly the door was shivering under bolt after bolt. Stone chips clattered on the floor at their feet. It was obvious, before they could cross the room, that the portal, sturdy as it was would never hold. They would be cut down before the ship could be launched.

Light came into the room as Jan operated the switch. His eyes were pinched, desperate. Somberly he stared at the battery of ancient levers and valves filling the small control-room. He seemed like a man in a dream as he went slowly to a relay of long bronze levers that stabbed up from the floor.

Audibly, he whispered the labels on several of them to himself. His face was expressionless when he looked up. "This is the one chance we've got left. Some of these old valves still work. Pray God this one does!" His hands closed on the tarnished grip of one of them.

Webb watched him stupidly. "What -what's the idea, Jan?"
The surgeon took a deep breath as though to steady his nerves before he replied. "The idea is that the reservoir under the place is still half full, even

though it's three hundred years old. This particular lever operates a pipe running through the other room. I saw that pipe cave in under one of their shots. When I open the line Radic is either going to get out of that room or drown!

## CHAPTER $v$

## When Athasia Spoke

FOR a moment Webb could only blink. Then he croaked, "Lordif it only works!"
Marlan threw his weight back on the bar. From the ratchet at its base came a rusty squall. One after another, the red, rusted iron teeth snapped off. Not until the lever was at its fullest extent back did the surgeon stop.

Softy at first, then more and more noticeably, a low, boiling roar came into the room. The stone floor trembled. The quivering increased until the pipes could be seen to shake mortar loose where they entered the walls.
"You got the right valve-?" Webb asked tensely. It seemed impossible that one small piper, no larger than a foot in diameter, could cause such a violent trembling. Yet none of the pipes in the other room were any bigger than that.

Marlan did not answer. He had released the lever preparatory to leading them out. But before his gaze the Iever was slowly being forced closed, as the spring pushed it over blunted ratchet teeth! The significance of it escaped them all for a moment.

At last Jan looked up. He was holding the valve open again. "You've got to get out of here in a hurry," he groaned. "The door may not hold until the room is flooded. The shed is at the end of the building, and the ship is full of fuel. This passage will take you
out. Don't stand there!" he shouted suddenly. "Get out!"

Webb was stunned by his savage tone. "But if they break through-" he argued, conscious that something was wrong here.
"If they break through I'll blast them to hell with your gun!" Marlan snarled. "Don't waste time arguing, Temple. There's more than any one or two lives at stake here. You've got a world to go back to."

A barrage of shots that almost caved in the door aroused Webb. He flipped the gun over in his hand, shoved it butt foremost to the physician. "I guess this makes us even, Jan," his quiet voice came slowly. "I only wish I could see the end of this fight beside you, too."

For just a second their glances met. Marlan's taut features relaxed. "Don't forget Athasia," he grinned. "Though I can't promise Athasia will remember you!"

There was a shadow of duplicity in his tone, as though the words hid his real meaning. But it was gone in a flash, as he gestured hurriedly. "Now, get on your way. I'll remember you to Max Radic!"

BEFORE they emerged from the tunnel the subterranean roar had become an earthquake that threw them from one side of the passage to the other. Crawling, running, stumbling, the man and girl burst into the cold night air.

Outside, they stopped, amazed at the sight that met their eyes.

From the ragged rim of the crater boiled a thick yellowish fog that spewed high in the air to mushroom out over the city. A monstrous roar filled their ears. Athasia's extinct volcano was erupting!

Webb filled his eyes with one horrified look, then shouted: "Let's go! If
that thing goes off before we get clear, we won't need a rocket ship to throw us a mile in the air!"

They raced into the cylindrical hangar that was like a huge cannon tilted into the air. The tumult of heaving earth was so violent that Webb could hardly get the ports of the ship open and help Aline through. He strapped her to a seat and fell into the pilot's place.

Sweating, trembling, he opened the fuel cocks and switched on the ignition.

Without warning the entire hangar seemed to leap in the air. A huge chasm cleft the ground the ship rested on. Immediately a geyster of mud and rocks and steam shot about it to plaster the quartzite ports with filth.

Athasia's long silence was being broken. That thought drummed feverishly through Webb Temple's head as he yanked the accelerator back against his chest.

A roar of searing energy released. A moment of being crushed inside a fragile metal shell. Then a sensation of freedom, of soaring through space. Webb opened his eyes and glanced out.

Through the cloying mud on the ports, he saw stars gyrating about them, and hurried to put the ship on an even keel. Aline was beside him, suddenly, white and frightened.

Webb's reassuring hand brought hesitant speech to her lips. "Webb, you don't suppose-you don't think Jan-?"

Webb shot the rocket ship down, to skim low over the crater. He nodded. "I was wondering the same thing," he muttered. "That was no ordinary pipe Marlan opened. It's my guess he opened the valve that let the whole reservoir loose. And where would it empty . . . but into the crater, the most convenient outlet for it! When
it struck the molten lava somewhere inside Ganymede, only one thing could happen. Live steam under pressurethere's no telling . . ."

His words choked off. Through the walls of the ship came a bellow of sound that even blasting rocket tubes could not overtone. Horror-born silence claimed them. They were watching a whole city die.

It was like seeing a city of little mud houses crumble when some burrowing animal passes under it. Tall buildings seemed to draw themselves up to their highest, only to twist and fall on the billowing slopes. Immense tidal waves rolled up the island on all sides, immersing the entire waterfront section, with its furtive population.

The rocket ship spiralled lower. Now they could see whole blocks of mid-dle-class residences slide down on the buildings below. Fires struck up here and there where gas mains caught stray sparks. In the red glow they watched men milling in the streets, saw them turn on each other like rats in a burning box.

Webb's face was grim as he dropped the craft down above Jan Marlan's home. Nothing remained but a brickpile of ruined splendor. But even while their eyes studied the heaving terrain anxiously, three figures were outlined in the path of brilliance their cruising lights sprayed downward.

Two yellow-garbed forms and one man whose coppery clothing caught reddish wrinkles of light. Of Jan Marlan there was no sign.

Then those three figures disappeared, too, as the crater vomited its gorge of boiling mud over the brim and immersed them.

There was a sickness in Webb Temple's soul that he was not to forget for long months. He whirled the ship up again. When they levelled off, five
miles above Ganymede, Athasia was just settling beneath the angry waves.

No word passed their lips as they rocketed through the night toward the native village of Ila. It was a time for silence and gratitude and . . . trying to forget.

It was ironic, Webb thought, that of the thousands who had journeyed here to achieve forgetfulness, not a man would live to enjoy it. But there was a measure of sweetness in his bitter re-
flections.
Jan Marlan would be enjoying a peace he had not known for a long time. The others were no worse off than they had been. And Earth-

There might be turmoil and bloodshed for a while, but after that would come the glory of a new dawn. For the real battle had already been fought and won.

In Webb's ears, as they shot on, the roar of the blazing rocket tubes became a song of victory. . . .

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The lunar plain tremblad with recoil as Regert Ohms depressed the firing lever

## WAR JUPI <br> <br> WITH <br> <br> WITH TER

 TER}CHAPTER I
Aboard the Cachelot

TTHE master of the Cachelot, a well proportioned, middle-aged man, with a hard glint in his clear grey eyes, stood motionless before his pyrex view plate. He seemed in a deep trance of mental reflection. His fingers, however, played lightly over the small "T" bar beneath them, responding automatically as they responded to flickering signals from the control board of the plummeting freighter.
A voice, young and edged with eagerness, broke the deep silence.
"We're within braking distance of the Space Station, Sir!"
"Eh?" responded the broad-shouldered Master as he broke away from his fit of reverie, "Within braking distance already?"

He turned to his myriad instruments and checked the young officer's statement. "You're right, me lad, you may give the braking signal!"

With that he turned back to his view plate, and, as he did so, he could hear the muffled throb of the atomic pulsators releasing their terrific power in

> Between Earth and utter defeat lay only a mysterious capsule dug from an ancient excavation.

## By <br> W. Lawrence Hamling and Mark Reinsberg

check of their mad flight through space.
Dimly the view plate revealed a tiny speck of silver light-light reflected, not from the mother sun, but from the huge bulk of its gigantic companion, Jupiter.

The Space Station. Well did he know the sight of it-a long, elliptical sphere, its greatest diameter being approximately 10.4 miles, and its length nearly reaching the unbelievable distance of 100 miles! Great towering spires, interwoven with long, looping runways, myriads of expansive glassite ports, housing visitors from the nine inclusive planets, and great bloated ware-houses, filled to capacity with the trades of a hundred different races!

The Space Station meant a new link in interplanetary commerce. The Jovians, that great, squat race of bipeds, who lived alone in their poisonous ammonia atmosphere, controlled the entire supply of the system's caldonite, a tough, durable metal, fifty times stronger than the hardest steel, and, as a result of the enormous demand for it, some means had to be devised whereby it could be economically
transported from Jupiter's surface.*
Consequently, the Space Station, the idea of that great Tellurian scientist, Regert Ohms, had been constructed, as the final connection in the already great chain of interplanetic relations, on which ships from every inhabited world of the Solar system landed, trading, and exchanging goods of every description, including Jovian caldonite.

FOR many months this system had worked perfectly, under the auspices of the Supreme Council on Earth. But now within the last two-and one half months, hundreds of freighters had been deliberately preyed upon by one of the major planets, and it was a natural outcome that suspicion should fall upon both Mars and Jupiter, for it was suspected by many that these two worlds had been secretly plotting together against the Supreme Council.

Mars had been uncommonly indignant. If something were not done immediately, she said the gravest consequences would surely follow. Naturely, the Jovians had denied any knowledge of the strange disappearances, and, as matters stood, a grave tension existed, but at the present, nothing could be done, except to keep a sharp watch for any suspicious looking craft. Thus, as the Master of the Cachelot looked into his view plate, he made a careful survey of the surrounding heavens, for any possible lurking craft. He looked out into the inky blackness of space-cold, cheerless, and friendless, stretching on, and on, far into stygian night of infinity, and saw-nothing!

The silver speck of the Space Station itself had suddenly vanished! Then,

[^7]out of the attuned space receiver came a low, sibilant voice.
"To the Master of the Cachelot.-We order you to surrender your ship immediately!"

The hardened Captain stood stolidly before his instruments, and suddenly, he knew! He knew how these vicious attrocities were accomplished! It was as if that ominous voice had brushed aside a dark curtain of uncertainty, for now, he realized how devilishly smart were these bold marauders; painting their ships totally black with light-absorbing material, making themselves practically invisible! That was what had blotted out the Space Station. No ${ }^{+}$ wonder little resistance had been met, for how could a battle be fought against an unseen foe? His voice, hard and brittle with unconcealed contempt, barked into the transmitter.
"Go to the devil you damned murdering pirates!" So saying he prepared to whip the sleek ship into as quick a turn as was possible, considering the impetus of their drive. But, before he could so much as move a finger, a great orange light appeared from nowhere to bathe the ship in an eerie glow, slowly turning the metal a dull red, and finally a bright crimson.

For five minutes the rays played upon the ship, then it suddenly flickered out, and a black shape moved in close to the doomed vessel.

## CHAPTER II

## Turmoil

THE Supreme Council chamber was in an uproar. The massive room shook with the terrific vibration of a thousand voices, each clamoring to be recognized by the President, each trying to outdo his neighbor, and each succeeding rather boisterously.

So great was the confusion that actual fighting threatened to break out among the gathered delegates, in fact, already a small, green scaled Venusian had torn at the yellow body of his nearest Martian neighbor, who had immediately returned the assault with a hideous scream of hate. He was quickly being re-enforced by others of his well represented clan when a deep, stentorian voice boomed ominously in the midst of the massed confusion.
"SILENCE!" The voice carried not only official anger in its tone, but also a note of complete command that ordered an immediate cessation of the disturbance; and, it was not many minutes after before the uproar had subsided sufficiently so that the President's voice could be heard in its ordinary tone.
"Just what do you gentlemen, if gentlemen I can call you after such a boorish display, expect to attain by such measures? I must request that never again shall such a thing occur, under penalty of expulsion from the Council!"

His words were met by a hushed assembly, hushed excepting for the Martian section, from whose solid ranks there issued an unmistakable murmuring.

Suddenly, a harsh, metallic voice cut through the enforced silence, issuing directly from the Martian section. It was Lakh Tar, the viceroy of the Martian government.
"Mr. President!" the words seemed more of a mockery than a respectful address: "I demand that immediate steps be taken to repel these unwarranted ravages upon transport freight! It is coming to such a state where my government will no longer stand for this inactivity from the Council!"

His words were met by a general hubbub; some voices raised in assent, but the majority mumbling forth in illconcealed annoyance, angered by the
domineering tone of the haughty Martian.

Then, the chamber once more regained its composure, this time, however, not under direct threat of impeachment, but as a result of the appearance of a lofty, white-haired figure, an Earthman, quite advanced in years if appearances meant anything. He made his way quietly to the speaker's platform, to the right of the President, and, as he stood there, straight, tall and commanding, despite his apparent age, whispers drifted throughout the entire assembly.
"Regert Ohms! Look-its Regert Ohms!" And indeed it was the great scientist, in whose brain the Space Station had found its being, by whose hands the efficient atomic-pulsator had been wrought, from whose mind the entire advancement in science had originated. Yes, it was Regert Ohms, most respected, and feared, if it were known, of all human beings in the entire planetary council.

$\mathrm{H}^{1}$E stood there a moment, domineering and impressive, viewing the multitude of faces peering up at him, awaiting his words. Then he spoke without introductory remarks: "We all have the same issue in common today, that of finding a solution to the present crisis. Mr. Tar, in particular, it seems has great complaints to lay before the Council, complaints of damage to freight transporting, but, as yet, as far as records show, I do not recall one single instance in which a Martian ship has been attacked and confiscated. Lakh Tar states that if something is not done immediately, his government will not be responsible for its actions. Since this person, one of our more distinguished delegates, has said that something must be done, and done quickly, perhaps he can provide us with
a favorable solution to the problem?"
The Martian arose angrily to his feet. trembling visibly in ill-concealed wrath.
"Do you dare accuse my government of having any connection with these atrocities? I demand a formal apology to such an outrageous insult! Further-more-it is not my place to provide any solution. With such an exalted brain as Regert Ohms in our midst such a problem should be easy to solve. If you can not find an answer who can?"

The Council was once more in an up-roar-the Martians on their feet applauding the outburst of Lakh Tar, while the remainder of the assembly took sides with the aged scientist and audibly flung stinging insults toward the Martian section.

The heavy mallet of the President resounded throughout the chamber, bringing silence and once more the tall figure of Regert Ohms addressed the assembly.
"I wish to assure the assembly that I had no intention of insulting the Martian government by my remarks, but, since that government has openly declared itself hostile to the procedure of the Council, I feel that it is only right in regards to the other members of the Council that certain facts should be brought to light that hitherto have remained in darkness!" He paused for a moment, and his eyes blazed furiously as he slowly continued.
"Gentlemen, I can tell you the names of the persons responsible for these atrocities upon our trade and commerce; I can tell you the name of that people, and the purpose behind their actions!" Once again he paused, and viewed the tense faces about him, tense to the point of breathlessness, for not a sound issued from the vast gathering.
"Today, the Tellurian ship, the Cachelot, was found drifting in space approximately 300,000 miles from the

Space Station, a charred, blackened hulk of death, every life abroad lost, and its entire cargo, which consisted mainly of a fabulous shipment of radium, gone!"
Not a sound came from the hushed group; it was as if a spell had been cast upon them. Then Regert Ohms continued, this time his voice developing a distinct note of harshness. "And on that ship, in the control room, the captain was found, burnt horribly, but still retaining a grip upon the " T " bar, as if he had not been quite dead when the murderers entered the ship. Upon examining his mutilated body, the unmistakable marks of a hydro-cyanic bullet* were found; a bullet that is used only by the inhabitants of Mars and Jupiter!"
Not a being moved in that great Council chamber; not a voice broke the unnatural stillness, and then, slowly, each and every eye turned upon the Martian section, and a deep murmuring arose, a rising thunder of angry voices. Out of the threatening tenseness of the room appeared the figure of Lakh Tar, whose shrill, screaming voice pierced to the farthest corners of the assembly.
"You-you dare to accuse us of these abominable crimes? You dare to call the Martian government a harborer of bloody pirates?" His ungainly figure was so shaken with wrath and anger that it seemed as if he must burst a blood vessel. "I have stood enough of these intolerable insults! In view of the authority invested in me by my superiors, I hereby withdraw all Martian in-

[^8]terests and capacities from this Council!"
No pounding of the gavel, no threatening commands, not even the pleading figure of Regert Ohms could restore order to that assembly-it was as if a mighty storm had burst within the confines of the lofty chamber. It was by the order of the President that the Planetary guard broke in upon the wild scene, and temporarily dissolved the meeting. ...

## CHAPTER III

## Open Rebellion

REGERT OHMS walked wearily down the smooth metal corridors, away from the seething inferno of the Council chamber, his mind in a highly unstable state. Who could have foreseen the unprecedented thing that had just happened-Mars seceding, not one day after Jupiter, from the Supreme delegation, and the smooth-working machine of the Council completely demolished in just one operation.
His son, Wehl, a tall, straight, athletic young man, bearing the stamp of his father's commanding features, met him at the door. Seeing the look of distress upon his father's brow, he did not try to question him, but walked slowly beside him into the massively equipped laboratory directly behind their wellfurnished living quarters.

The room into which they thus proceeded was a great circular affair, lofty and expansive, surrounded on all sides by a great glass enclosure, insuring the maximum amount of light needed for certain experiments, and filled throughout with a most amazing assortment of scientific instruments and mahines.

Regert Ohms sat down weakly in one of the less comfortable chairs, a hard metal piece of furniture, and calmly began to relate the preceding events
to his attentive son, blaming himself all the while for having started the affair.

But Wehl restrained him, "I know how you feel, Father, but both you and I know that Mars is directly responsible for these piracies, as much so as Jupiter, and it is probably better that the Council knows the exact truth."
"That in itself is true, my son," spoke the aged scientist, "but that is not what is troubling me-I am thinking of the future, for now those devilish dogs won't even need to work in secret, but will openly defy the Council. They will increase their activities a hundred times, which will undoubtedly end in a disastrous war." He gripped the chair strongly, and his voice whispered softly, "Yes, something must be done!" . . .

$I^{1}$N the weeks that followed, it became apparent, even to the most skeptical minds, that both Mars and Jupiter had allied in some secret treaty. That between themselves, they were feasting upon millions and millions of dollars of loot taken from victimized transports in the vicinity of the Space Station; not in secret, as had been their policy in the past, but openly, even as the old scientist had foretold. Even more alarming was the fact that all peaceful negotiations between these two planets and the rest of the system had been unceremoniously broken off. To make matters worse-the control of the Space Station had been taken by force from the hands of the Council. It was being turned into a veritable Rock of Gibralter of Space by its domineering tenants.

Great fortifications were being erected upon its surface-fortifications that made the greatest weapons aboard the largest of the Space fleets look like toy pistols. In short, this work of genius, that had taken years to plan and construct, for the purpose of peace and friendly relations between worlds,
was now being turned to the purpose of war. A weapon that was in itself invincible, protecting the great fleets of Mars and Jupiter, combined upon its surface, safe from any attack.

The outlook upon the future became the blackest it had ever been. The fear of invasion was prevalent in every mind, resulting in the greatest re-armament campaign since the ancient days of the Twentieth Century, over five thousand years back.

But the other planets of the Solar System were too late, for Mars and Jupiter had been secretly preparing for this moment for many years. Before the Council knew exactly what was happening, the gigantic Martian and Jovian forces began to move. Their first victim was the planet Saturn, which they subdued in less than fourteen Earth hours with fiendish compression rays, with enormous Martian "squash" guns, and a myriad of hydro-cyanic projectors, which emitted great streams of the poisonous material throughout the Saturnian atmosphere, killing the unprepared people by the millions. A ghastily business it was, a horribly brutal maneuver, but it served as a warning, a warning that told the rest of the planets under the protection of the Council that their turn might well be next.

## CHAPTER IV

## Disaster

ONCE again the Supreme Council was in an uproar-this time, however, not in such a state as previously, but in a clamoring thunder of complaint and terror.

The President, haggard-eyed, and obviously troubled through loss of sleep, pleaded for order, but his voice went unheeded until the tall form of

Regert Ohms made its appearance upon the platform, when suddenly, the clamoring died into silence as they all waited for his words, hoping that at last this great man had found a solution to the crisis, a means of defeating the impregnable forces of the enemy.

He stood there, not quite so straight as he had a few weeks before, but, nevertheless, impressive, and commanding of appearance, as was his natural pose.
"Member of the Council," he began, "our supply of caldonite is exhausted, and the only means of acquiring any more is through the use of the space station, which is hopelessly cut off from us. Our re-armament program is at a standstill through the loss of that necessary metal. Our enemies, on the other hand, have an unlimited supply of it at their disposal, and have constructed an enormous fighting fleet which may continue its attack at any moment. There is but one answer.
"If the ancient saying, "What you create, you can destroy," has any foundation in fact, then I will find some way to defeat the Martians and Jovians by destroying the Space Station!"

His words were met by a thunderous ovation of applause, and hundreds of voices exalted his name, as if he had already accomplished what he had merely implied in words.

But there was one man who knew the real feelings of this great man; that person was the President of the Council, and, as Regert Ohms left the assembly, the President walked beside him, conversing softly.
"You have made no plans, have you Regert?"

The scientist, shaking his head slowly from side to side, answered. "I could not let those people down, Sir, they have put so much trust in me. But, as God is my witness, I shall not rest until I have succeeded-I must!"

With these parting words, he left the President and began to thread his way slowly down the corridors toward his laboratory. Suddenly he was thrown from his feet by a mighty blast, a terrific concussion that rocked the very foundations of the immense building. A soldier gently assisted him to his feet.
"What has happened-where was that explosion?"
"I don't know Sir, but I think it came from your laboratory."
"My laboratory? Good heavens, my son!"

He ran wildly down the corridors, into his wrecked apartments, stopped short. Where his well-equipped laboratory had been, now was a gigantic hole-a hole that had entirely obliterated all traces of the erstwhile workshop, a great deep chasm, undoubtedly the work of an atomic bomb, stretching downward for a depth of over sixty feet into the solid rock foundation of the building.

A strangled cry broke from his lips, "My son, my son!" He slumped to the ground before the yawning chasm as the full import of the ghastly fate he had escaped engulfed him. This work was undoubtedly that of the agents of Lakh Tar, who knew that he was the only man who stood any chances of foiling his mad schemes of planetary dominance. He could see in his mind's eye how one of these agents, seeing the figure of a man in the room, must have taken it to be he, Regert Ohms. He must have set the time fuse on the bomb, and, after placing it against the building stealthily, run away to escape, while behind him that hellish mechanism of death had exploded, sending his son to a horrible death, and completely demolishing his beautiful laboratory.

As these thoughts forged through his numbed brain, his old, worn body col-
lapsed. The strain of all these past days, now added immeasureably by the present catastrophe, had been entirely too much for him.

## CHAPTER V

## A Discovery

THREE days followed while he convalesced from the shock of his son's untimely death. After he had once more regained some semblance of his former self, he was consistently accompanied by two expert body-guards, for the Council was taking no unnecessary chances with his valuable safety. Few persons would have recognized the figure of Regert Ohms now for he had aged ten years in those few days. He seldom spoke, unless it was to give a direct order.

It was late in the afternoon-the date, July 15, 6960. Regert Ohms, looked at the calendar, and his fingers trembled visibly. It was his son's birthday, for which he had planned much. It would not be in the least false to say that tears formed in his stern, grey eyes.

Clutching the tattered remains of the calendar in his hands, he stood among the despotic ruins of his laboratory, trying to find some trace of his lost records. Not easily replaceable excepting by hard, scientific labor. He rummaged over accumulated piles of debris, recognizing as he searched, parts of machinery that had once been assembled into mighty scientific instruments. He was standing at the bottom of the great hole, nearly sixty feet below the rim of the open world.

Before him lay the end of a metal tube, projecting from a solid mass of stone and concrete. He made his way over to the object and examined it closely.

From outward appearance it looked
like the replica of one of the ancient shells on display in the museum of his-tory-a shell such as had been used in the Twentieth Century as a weapon of war. Its nose was rusted and corroded, as if it had been there for many years, but it was strangely out of place among the torn remains of his laboratory, for old Regert Ohms could not recall ever having possessed any such contrivance among his tiers of equipment.

He called to his body-guards, who were situated at the top of the hole, incessantly watching him, and ordered that they summon workmen and equipment in order to retrieve the tube.

In ten minutes time, the crew arrived, carrying a large atomic drill.

The men lowered themselves into the pit and immediately went to work. The drill came to life with a deafening blast. The rock beneath its muzzle disintegrated into a shower of pulverized dust. Quickly and efficiently they labored, the drill working its way around the tube, boring deeper and deeper, until, finally, the thing was freed from its prison. Attaching magnetic grapples to it, the group of workmen left the pit.

The weight of the long, slim object was not excessive, and it was easily brought to the surface. After it had been deposited upon the ground, Regert Ohms had an opportunity to see its full length, approximately seven and a half feet, with a possible diameter of eight inches. The exterior was so entirely coated with deposits that little could be learned from a mere glance, so the scientist ordered it to be taken to his temporary workshop on the other side of the building.

The seven men lifted it without much effort, for the thing weighed little more than eight hundred pounds. Within ten minutes it lay motionless upon a hard metal table within the rather small confines of the temporary laboratory.

Their work completed, the scientist dismissed the men and turned his full attention to the strange metal tube.

AFTER scraping off about a quarterinch or so of deposit, he caught the smooth gleam of untarnished metal beneath it. His curiosity was aroused to fever pitch by this discovery, for he was absolutely sure that he had come across something entirely out of the ordinary. No matter what the tube was, he was sure of one thing, that it had no connection at all with the explosion -in fact, this thing must have been resting in the ground beneath his laboratory for centuries.

The next thing he did was to chip a small piece of the material from the main body and analyze it. The compounds, he found, were a rather weak alloy, composed of chromium and copper, with a small amount of silver added.

For a few moments he remained undecided as to what to do with the tube. Obviously the only feasible course would be to attempt to open it, in order to find out if anything were inside. He connected a welding ray, the name of the instrument being adverse, in that it was used both to join, and to separate. With this machine, he proceeded to play a hot, searing beam upon the metal casing, which immediately glowed a deep, cherry-red, and finally began to melt, running away from the blasting heat of the fiery ray.

All the way around the tube he went with the beam of incandescent heat, covering completely the seven and a half feet of metal, until he had cut the case entirely in half and was able to separate the two sections.

What he saw gave him pause for wonder, for the covering beneath the thick metal was a recognizable pyrex glass, under which he could see the un*
mistakable color of a black insulator. His efforts now were quick and sure; he played the heat upon the glass just enough to weaken it, then cracked it from the dark covering. Tearing away the insulator, he revealed a most startling sight, for, stacked within the tube, was a most peculiar assortment of objects, from ancient light bulbs down to tiny rolls of micro-film.

The full knowledge of the discovery appalled him-it was a message from some by-gone generation, preserving the science of that day for the future. Indeed, it must have been a long time ago for he could remember no records of anything of this sort having been put into hibernation, for many past centuries.

Then he found the message. At first he had a rough time of it in recognizing the language, but since he had made a study of all ancient tongues in his student days, it was not long before he comprehended the meaning of the words, written in the ancient English tongue.

On this day of September 23, 1938, the Westinghouse Time Capsule,* with its compressed storehouse of scientific information, begins its five thousand year journey into the future. To you people of a distant day, we of the Twentieth Century send this tube. For five
thousand years this memorial of a great generation shall lie buried, and, when these words are read, you of the future will receive some idea of how your ancestors lived, dressed, and progressed. We are enclosing in this tube the most important scientific and social products of our era, reduced to micro-film in many respects. Our science, in probable comparison with that of yours, is no doubt obsolete, but remember that all your progress had its beginning in our time.

At this point, Regert Ohms stopped reading, and a great feeling of respect entered his heart. What a great race of beings those ancients must have been! What foresight-to preserve their scientific knowledge for the future, to let their descendants know of them.

$\mathrm{H}^{\mathrm{E}}$E turned his attention to the objects inside the tube. He examined a light bulb, the ancient system of illumination, now replaced by efficient radium lighting. He examined the tiny rolls of film, noted the history of Einstein's theory of Relativity, of Fitzgerald's Contraction theory, of Darwin's theory. He followed advancement in magazines and literature, and especially long did he dwell upon one tiny roll of film, about a science fiction magazine called Amazing Stories, and he

[^9]To the solemn booming of a giant bell, the

Capsule disappeared slowly into the earth. Workmen screwed down and sealed the cap, symbolically dispatching, for delivery in 5,000 years, the heaviest "letter" ever "mailed."

During the World's Fair the Capsule may be on view through a periscope, and inside the Westinghouse Building will be a replica, together with duplicates of all the objects, books, fabrics, alloys, toys, newsreels and other items it contains.

When the Fair is over pitch and concrete will be poured down the Well; the retaining pipe will be removed, and the Capsule will be left for discovery by archaeologists of the future.-Excerpt from "Amazing Stories" for January, 1939. (Note: The issue referred to in this story is the October Amazing Stories, selected by a committee of scientists for inclusion in the Time Capsule.-Ed.)
marveled at some of the things he saw foretold in the stories included. "Indeed an amazing race they must have been!" came his muttered phrases, as he interestedly scanned its pages.

As his eyes ran over the lines on the film, lines from a by-gone era, his heart leaped-his hands trembled-for he had found the answer to his problem, an answer given by a micro-film over five thousand years old! He had found a way to destroy the Space Station!

Regert Ohms eyes blazed with a fire that had been absent for many days. At last he had found a way to destroy the menace of the Space Station. It had taken the Westinghouse Time Capsule to open his eyes.

All that was needed was to send an atomic, caldonite catalyst against the Space Station! He could see in his mind's eye what would happen when such a catalyst would strike the station. Being made entirely of caldonite, the entire, man-made world would completely disintegrate in atomic combustion!

## CHAPTER VI

## A Dead Victory

T${ }^{-}$HE weeks slipped by, and day by day the enemy was building stronger fortifications upon the Station, massing great fleets from the surface of Jupiter in preparation for a great drive of conquest, against Earth itself!

The Council clamored insistently for news from Regert Ohms, but the aged scientist was missing from Earth and could not be found. Had they known where to look, he could have been found upon the Moon, taking part in a gigantic project of extreme secrecy.

A massive object began to take form upon the Moon's dim surface, an enormous thing that rose three hundred feet into the airless atmosphere. It was a
ponderous thing-a gun, larger than any ever before built, and, at its base, making slight adjustments here and there, stood Regert Ohms.

A long, slim, pointing muzzle reached high into the heavens, in the general direction of Jupiter. The scientist looked outlandish in his weird space garb, but there could be no mistaking the resolute gleam in his eye as he sighted along the straight, true, barrel. He knew that in a few more hours his task would be completed and the time would be near to reap the fruits of the labor of the past three weeks.

Every once in awhile he would give an order to one of the workmen who labored at finishing touches, and he seemed to grow a little more nervous as the time of completion neared.

As he saw that everything was progressing nicely, he checked his final calculations.

He knew that even the lowest velocity would send the projectile on its way from the Moon's surface, away from the pull of the Lunar gravity, one-sixth that of Earth. He had calculated that the projectile would travel at a speed of approximately 93,000 miles per second. The projectile should reach the Space Station in close to seventy minutes time, and then he shuddered. A gruesome way to attain the end, but, they had killed his son, and there was no other way, even though it meant the loss of every life upon the Station.

A$S$ the time drew near for the proposed shot, he took a last look into his special light-gathering view plate, reaching its invisible eyes far out into space.

He gazed with extreme satisfaction upon the thing that he had created, moving serenely in its own individual orbit, but his eyes shadowed as he glimpsed the countless ships upon its surface,
waiting for the signal to attack.
A workman informed him that all was now ready for the signal to fire!

Regert Ohms stood silently waiting, as if transfixed to the ground by some unearthly force. In two minutes' time he would give the signal, and at that moment the catalyst of death would be launched upon its journey through the heavens. . . . One minute gone; his fingers trembled visibly as they clutched the watch tightly. His brain seemed to jump spasmodically at every jerking movement of the slowly revolving second hand. Ten seconds to go! The blood pounded madly through his veins, and his heart pumped furiously in his throat, and then-the time!

There was no audible sound when the huge mechanical thing disrupted in the airless atmosphere of the Moon, but the terrific power of it could be visibly felt as it shook the very mountains standing eternally around it. Regert Ohms, although he had braced himself for the shock, felt as if every single atom of his body had been subjected to vibration. But-it had gone-gone on its grisly errand of death and destruction. . . .

The scientist sat impatiently at his control board, nervously tapping upon the hard metal expanse surrounding him. Intermittently, glanced from the finely focused view plate to the softly ticking watch, which seemed to move agedly, making the small space of a second seem a year. . . . Thirty minutes had passed. He fidgeted annoyedly in his comfortable seat, as if his actions would increase the speed of time. . . . Forty minutes passed.

He glanced automatically at the view plate before him-and started. For a few moments he gazed intently at it, and then, finally relaxed. He had seen a gigantic fleet leave the surface of Jupiter and head for the Space Station, and he
smiled grimly as he thought of the surprise that soon awaited them. Fifty minutes passed.

Suddenly, he leaped from his chair. His eyes bulged unbelievably from his head. Were his senses deceiving him, or did he actually see those great fleets rising from the smooth metal runways of the Station? Yes, it was true. Horribly true. And those ships, as they rose from their berths, were heading-toward Earth!

REGERT OHMS groaned, he groaned miserably, pouring out the tragic sorrow of his soul in utter desponency. All his weeks of labor of no avail-to be cheated just when he had been so sure of success. For the first time in his long, eventful life, he now felt the sharp pangs of defeat, and it hurt, hurt dreadfully.

Then the missile struck! Regert Ohms saw it strike-saw it hit the spiring towers of the Space port-saw the catalyst explode with tremendous force and ignite the caldonite atoms of the entire station, the impregnable Space Station! Such a sight had never before been witnessed by human eyes-a manmade world completely disintegrating, its atoms exploding in such cataclysmic force as to make the small object a miniature sun.

Section by section, hemisphere by hemisphere, from pole to pole went the mighty forces, and then, the remains exploded into a trillion tiny stars, a trillion streaking comets that launched themselves throughout space.

Regert Ohms lifted his ship from the moon, heading for the bright immensity of Earth. A fiery exultation coursed throughout his body, for he had conquered! Conquered through the aid of a race long since dead. A five thousand year Time Capsule had proved its worth.


Under Killeen's murderous blow, John Hala tumbled through the trapdoor

# THE CURSE OF MONTEZUMA BYED.EARL REPP 


#### Abstract

A strange death, this scourge from far Yucatan. John Hale, laboratory sleuth, was baffled until he made an amazing discovery-and faced death himself!


CHAPTER ONE Interrupted-By Death

IT came again, just when Hale thought the night visitor had given up and gone on. An insistent pounding, four short rings of the doorbell, shoes scraping impatiently on the porch.

The scientist groaned. From his hunched position by the telescope, he straightened to glower in the direction of the house. Of all times for callers

His cameras were set, his telescope vigilantly following the full moon, and everything was in readiness for the finest lunar eclipse in many years. In the bright path of moonlight bursting through the open slot of the small observatory dome, Dr. Hale stood rigid and undecided, smoky-blue eyes pinching behind thin eye-glasses. If he left now, he would be sure to miss the most vital phase of the eclipse.

Finding hope in the repeated silence, he started to turn back.

Then there was the measured approach of footfalls on the graveled path connecting house and observatory. Hale swore softly, reached for the switch to the outside lights. He went out and gloomily awaited the man who was striding through the shadows.

His gaze went over the massively constructed figure. There was something in the heavy-jowled, tanned countenance that tugged at his memory.

The perspiring visitor wiped his mouth of perspiration beads. "Sorry to break in on you this way, Doctor," he began. "The name's Killeen-your nearest neighbor, you know . . . if two miles is ever near. God knows it wasn't tonight!"

Hale remembered him, then, and smiled briefly. "Excuse my delay in answering," he apologized. "Anything I can do for you?" But he was hoping there was not. Killeen was one of three men who, like himself, had built a laboratory up here off the Angelus Crest highway, not far from Mount Wilson. Seclusion was the object . . . but there were times when Hale wondered if he had gone far enough.

The thickset man stirred under a weight of apprehension. "We're having a devil of a time with Ruskin," he burst out at last. "That damned fever he picked up in Yucatan-it's about got him licked tonight. I was wondering-would you mind having a look at him?"

A frown pulled Hale's brows into a flat V. "That's bad news about your partner," he said earnestly. "But
haven't you got my title wrong? I'm a doctor of philosophy-not medicine. Pills are a little out of my province."
"I know you're not an M. D.," the reply came shortly. "If you were, I wouldn't be here! You're the man they call the 'laboratory sleuth,' aren't you?"

John Hale admitted it. "But if I so much as recommended a cold cure, I could be arrested," he supplemented. "I'm sorry. Better call a good-"

The other's face fell into angry lines. "Ruskin's dying, Hale," he snapped. "We've had six different M. D.'s tell us he's got a fatal tropic fever they can't break. Naturally I don't expect you to prescribe. But you've got a reputation for being able to solve any mystery, Hale. Are you going to let him die without even trying to help?"

The lithe, gray-haired man knew a small shock of panic. Daily he had cause to regret the reputation that seemed to follow him like a hound of hell. An independent laboratory analyst five years ago, his brilliance had not gone unnoticed.

An admiring newspaper man had publicized his work and given him the nickname of "the laboratory sleuth." Overnight he was swamped by offers from desperate men of industry and science. Fortunes were offered him if he could make good the promise of his sobriquet. Textile manufacturers wanted a moth-proof fabric; power companies asked him to find the cause of tremendous power losses; a hundred other voices clamored for his help.

With every success, his renown increased, and he had less and less time to himself. Even in criminal cases his influence began to be felt. But tonight -well, he hadn't bought two dozen in-fra-red plates for nothing. Besides, Aristotle was his patron saint, not Hipprocates.

With a lift of his shoulders, he protested, "If I thought I could do any good whatever, I wouldn't hesitate."
"Then I'll put it this way." There was a hardness to the man's jaw now. "We're all men of science. You're an all-'round scientist, we're archaeologists. Ruskin's a valuable man in Mayan subjects. For the good of science, if for no other reason, will you help us, Hale?"

The challenge admitted no refusal. Hale turned back to the observatory, muttering, "I'll be right with you."

THE car's headlights flashed briefly across a wilderness of uncut hedges and bushes to sweep over gray walls. It was an ancient place in the pre-war California bungalow style, the chief difference being in its ample size. Hale estimated there must be twenty rooms in it.

The door sprang open before them. The scientist's nerves twitched in surprise at sight of the lovely dark-skinned girl who had admitted them. He tried to guess her race, but the full red lips, large eyes, and delicately-moulded nose defied him. She looked most of all like a deeply tanned American girl, but some inherent difference was there.

Her voice, when she grasped Killeen's arm and spoke hurriedly to him, was heavily accented. "Doctor Ham-mond-he is with Mr. Ruskin!" she breathed.

Hale watched fury rush into the archaeologist's face. "That damned butcher!" Killeen ground out. "I told him. . . ." He rushed off down a corridor at the right.

Faintly disturbed, John Hale followed. He labored under a feeling that things were not right here. There was a stifling, nauseating odor in the lowceilinged house that enhanced the feeling.

In his mind he juggled the few, skeletal facts he had garnered. Killeen, Ruskin, and another archaeologistLucas Garlan-had only lately returned from a protracted stay in the Yucatan. The purpose of the expedition, he learned, was to discover the reason for the strange abandonment of many Mayan cities in the seventh century. Ruskin and Garlan, apparently, had contracted some tropical disease which had only appeared a month ago. Garlan, he was told, seemed to be recovering.

Then he was turning into a door through which loud, angry voices emanated. It was murky in the room, all the light being furnished by a coaloil lamp, and at first he could not distinguish Killeen and the doctor. But the voices were plain enough. Hale set his bag down and waited.
"I told you if you ever showed up around here again," the explorer was bellowing, "I'd throw you out bodily! And I wasn't-"
"I've told you twice someone called me!" Doctor Hammond cut in acidly. "If you think I enjoy this case enough to drive fifteen miles to break in unwanted . . ." His short, thin frame was stiff with indignation. Anger colored his sallow cheeks, made his blue eyes wide behind thick lensed glasses.
Now the scientist's eyes went past the rigid figures to the quiet shape on the bed. Unobtrusively he moved across the room and stood looking down at the havoc disease had wrought in this man. Ruskin's cheeks were hollow and his eyes glazed and feverish. His mouth was moving as though he wished to speak, but only labored groans resulted.

Hale knew a dying man when he saw one, and he was seeing one now. He felt useless, futile, and wished he had never given in to Killeen's demands. Somberly he glanced about the room.

THE wall paper was loose and looked still dingier in the lamplight. There were electric lights in the room, but none were burning. Even the rug seemed to be decaying under their feet. It came to Hale suddenly that he had seen such disintegration as this in tropical countries, where the walls moulded overnight. In that same flash of understanding he realized how hot it was in here. He was sweating.

A rattling cough drew his gaze to Ruskin again. In an instant he had turned to call excitedly, "You'd better come over here, Doctor! He's going!"
But in the moment before the physician reached the bed, he felt the burning force of Ruskin's eyes on him. He shuddered as one of the hot, dry hands touched his own . . . then his pulse raced as a folded paper was slowly slipped into his palm.

Hammond hurried up to jostle him aside. Hale was on the point of looking at the paper when Killeen's heavy breathing, inches behind him, caused his fingers to clamp on the note. He decided to wait.
Hammond was trying for a pulse. Hurriedly he procured a hypodermic syringe and swabbed the living skeleton's arm with alcohol.
In Hale's ears was the girl's sobbing, then her footsteps as she rushed out of this room of death. Killeen croaked, "Can't you do something, Hale?"
John Hale shook his head. "Perhaps if I'd come a week ago I might have helped by moving him out of this pesthole of a room."

Hammond stood up, the syringe unused. "He's gone," he murmured. His manner betrayed relief. "I'll fill out the death certificate and call the ambulance. Does either of you have the time? My watch has stopped."

Hale frowned at his own timepiece. "Strange," he muttered. "The same
thing's happened to mine!"
"It's ten-thirteen," Killeen cut in sharply. "Thanks for your help, Hammond." Sarcasm still on his lips, he shook hands with Hale. "Sorry to have bothered you, Doctor. Just thought I'd better call you, as long as he wanted you."

Wordlessly, a little disgusted, Hale went out, closing the door on the scene. Then, abruptly, he swung aside as a light touch fell on his arm, and the voice of the dark-skinned girl cut the silence: "Quickly! Come with me!"

It was in his mind to refuse bluntly. But then he saw the stark terror in her eyes, and he hastened to follow.

## CHAPTER TWO

## The Room of Terror

LUCAS GARLAN was staggering about his slatternly bedroom when they entered. He was a big man, but the flesh had wasted from his massive frame until he seemed to be all angles. A nightshirt hung grotesquely from him while he fought to get trousers on over it.

The girl gave a little cry and crossed the room to his side. By sheer force she gripped the man's arms and forced him back to his bed.

His protests came in a painful croak. "No, Lana-no, damn it! I'm getting out of here before he kills me too!"

Tears streamed down the girl's cheeks while she spoke soothingly to him. Hale laid his omnipresent black bag on the table.

For the first time Garlan saw him. He came upright in the bed and stared. His gaze took stock of the tall, bony figure of the scientist, of his keen blue eyes. He appeared half afraid. "Who -are you?" he put thickly.
"I'm John Hale," the calm reply came. "Your-wife thought I could
help. But if you'd rather I left . . ." He stood there undecided.

The girl's thin, brown hands gently insinuated the sick man back on the mound of pillows. "I asked him to come, querido," she nodded. "Ruskin asked for him so long, I thought-maybe Dr. Hale-"
"Oh!" Garlan's features flamed with excitement and hope. "You're the man the poor devil was demanding all last week. Day and night I've heard him asking for 'the laboratory sleuth' 'til I thought I'd go crazy. I could hear him hollering clear in here." Abruptly, the new courage in his face flickered out. "But I guess maybe he was wrong. I don't hear him hollering now!" A bitter smile etched his lips.

The thought gripped Hale suddenly that here, if anywhere, was a man who needed his help. He found himself wanting to live up to the reputation he had earned. And because of that strong desire to restore hope to this pathetic couple, he went nearer and stood by the bed. "I'm not a doctor," he asserted, "but I'm going to try to help you. As a matter of fact, I've seen things that make me think it's not a doctor who's needed here anyway!"

T${ }^{4}$ HE eyes of man and girl were on him heavily. Garlan's lips scarcely moved: "I think we've got the right man at that!"

Hale was laying things out of his bag onto the table. Setting up some delicate instruments, he spoke without turning. "You said something about getting out 'before he killed you, too.' Does anything make you think Ruskin's death was due to something other than natural causes?"
"Two things gave me that notion. First, how have Lana and Killeen both escaped the fever? Of course, Lana, being a native of Yucatan, might have
a natural immunity-but not Killeen. And there's a reason why my death, like Ruskin's, would be convenient."

Hale's eyes grew piercing behind gold-rimmed spectacles.

Garlan shuddered with a racking chill. Grimly he went on. "I suppose I should keep my mouth shut, but why die with a secret like I've got on my chest? I'm going to ask you to treat everything I say just as though you were a physician, Hale-in strictest confidence."

John Hale said, "Be assured I will." Garlan paused as though gathering his strength. His voice was lower when he went on. "You've been wondering about my wife, I suppose," he suggested. "Lana is a Mayan-almost a pure-bred Mayan. We met in one of the little mountain villages, and-well, we fell in love and were married. She knew what we were there for, and told me a legend her people have about the mysterious desertion of those cities. When they left, the story went, they buried vast quantities of gold somewhere. Just a story, we thought.
"But to cut it short, Hale, we found more gold under one of the temples than you'll ever see! The trouble was . . . it was in alloy form! What an aloly-!" his gaunt head wagged. "There isn't a process in existence that will separate the gold from the other constituents of the mass. Those Mayans weren't so stupid. We fought with it for weeks, and finally brought the whole ton of it home.
"Killeen's a clever devil in electricity, you know. So clever that he's found a way to bring out the gold as pure as nuggets! I don't know how he does it. It isn't electrolysis, exactly. Whatever it is, we were just on the eve of refining the lot of it when we got sick."

Hale nodded slowly, glanced down at the thermometer he had set up. Ab-
ruptly he seized it. "Odd!" he muttered. His gaze flashed to Garlan. "How hot would you say it was in here?"

Garlan groaned. "A hundred and ten, if my fever means anything!"
"It's exactly sixty-two!" With perfect timing, a drop of perspiration fell from the end of the scientist's nose. He touched his face to find he was sweating profusely. "Yet I'd swear it was a hundred and five," he muttered.

Suddenly he reached into his bag and commenced pulling things out. His little black carry-all was famous whereever scientists gathered. In it Hale carried a hundred ingenious instruments, most of them of his own devising.

There was his spectroscopic pistol, which "shot" substances and flashed a spectrograph onto a strip of film in the breech. There were cameras loaded with films of various types. There were scales which could weight a period. And there was an electroscope, which he was un-casing now.

His rather bony face went sharp with eagerness as he set up the glass box in which two thin strips of gold leaf hung limp. Hale exposed the poles atop the instrument ... and instantly the leaves of gold shot together. Again and again he tested it. The result was unmistakable. There was some radioactive substance in this house, or radiant energy of some sort!

Now he went to the wall switch and flipped it on. The lights did not respond. The same dim oil lamp continued to give the only illumination. A frown grew on his face.
"I thought-well, never mind what I thought," he amended. "I can only say this with certainty: There is some unholy atmosphere in this house which is causing all these phenomena. Moldering walls, rotting rugs, watches stopping for no reason, lights out of order. These
things aren't natural. They have been . . ."

In the next moment the opening of the door brought his head around.

Killeen was standing in the portal. His flat, broad face masked his emotions. "The doctor's leaving," he said shortly. "Shall I take you back now?"
"Might as well," Hale agreed. "There seems to be nothing I can do to help. Oh-one question! Is there a powerhouse somewhere in the neighborhood?"

A tension that was like a thing alive whipped through the room. Killeen breathed, "No, there is not. Did you . . . have some idea . . .?"

John Hale shook his head with forced nonchalance. "None at all. I just thought I might report your electric light trouble to their trouble-shooters. But if the primitive lamps don't bother you, they certainly don't me."

The warmth of hope in his glance as he left caused a slight lessening of the anxious puckers in the dying man's face. But when his gaze encountered Killeen's frigid stare, their eyes locked for a fraction of a second like two carbon arcs which fuse angrily upon touching. In that instant Hale's trained sensibilities flashed to his mind a message of partial success-and of vigilance.

## CHAPTER THREE

## The Walls That Lived

$I^{T}$T was like coming from the turbulence of a madhouse into the sanctuary of a cathedral, to be once again in his walnut-paneled study. Hale left a single, vellum-shaded lamp burning, so that a brooding half-light dwelt on shelves of leather-bound books, and pictures. With his feet on the high end of the old couch and his head low, he lay in the attitude of complete repose which seemed to conduce to his best thinking.

But it was not until his tired brain had exhausted every angle of the case that he suddenly remembered the note the dead Ruskin had given him.

His fingers went to tugging the paper from his pocket. With his first look at it, bafflement came down on him like a blanket. A most unscientific exclamation burst from his lips: "Well, I'll be damned!"

The note was simply a crude representation of a dynamo. Two lead-off wires, indicated by arrows pointing away from the machine, were labeled: "Output, 4,400 V." Opposite to these poles were two others, in dotted lines. And these were marked only by a question mark. That was all. This was the message a dying man had fought to sketch and give to Hale.

The laboratory sleuth had never felt less like a shrewd investigator than he did in the five minutes he sat and stared at the pictograph. He glowered at it until his eyes ached, but his travailing mind bore only one conclusion: That Ruskin had not used a picture instead of writing merely to confuse him, but because he thought by drawing his message he could express an idea he would never have had strength to write out in full.

As he scrutinized the cryptogram, an old thread of thought recurred to him. Could this be Ruskin's way of expressing the same questions he himself had asked about Einstein's conservation of mass theory long ago? The theory, that the expenditure of heat or energy means an equivalent mass has been sublimated into the new form, always stumped Hale when he tried to apply it to electricity. What mass was reduced, and where, when great forces of electricity were unleashed?

Hale shook his head doggedly. Why would a dying man be worrying about physics? Then suddenly a new thought
brought him up on his feet, to head for the observatory.
His photographic plates! He had set the cameras to take pictures at regulated intervals during the eclipse. Impatient and eager, he rushed into the business of developing the shots.

BUT that night of mysteries had not finished with Dr. Hale.
In all five pictures he had taken, there was not a trace of the moon. He found, on every plate, images of constellations and isolated suns, but not even a corner of Luna.

For a long time Hale stood looking at the drying prints, while strange panic stirred within him. For the clock-controlled telescope was still following the path of the moon when he returned. At least, it seemed to be. It was pointing straight overhead, where the satellite certainly appeared to be. Yet. . . .

Suddenly Hale sprang from the dark room to his telescope. His eye went against the eyepiece, and then he reeled back, stunned. The moon was not in the image in his reflector-

He left the structure and, gazing overhead, gaped at a moon which seemed to have declined twenty degrees to the east since he had looked at it last. He crossed the yard. A couple of hundred feet away the satellite was restored to its proper position, shifting across the sky even as he walked. When he returned, it slid back toward the horizon, moving backward to its usual direction.
John Hale began to understand, then. He found the constellations he had photographed and on a paper drew a line from them to his observatory. When he continued this line, it bisected the spot on which the Killeen residence stood. Hale regarded the little diagram for some time. His face did not exhibit any change of expression, but when
finally he stirred, it was to go to his bag and take out a powerful .375 automatic pistol, capable of drilling half-inch steel, as well as less brittle substances.

He did not leave the house, however. He went thoughtfully to bed, and his last act on retiring was to lay the weapon carefully beneath his pillow.

THERE was still a cold bite in the mountain air when Hale gained the brushy eminence a half-mile above his place the following morning. Somewhat to his surprise, he had found no need for the pistol during his few hours of sleep. Now, armed with field glasses as well, he stood and squinted down the mountainside, over the far-off roof of his own house, to where the archaeologists' place nestled among Monterey cypress and eucalyptus.
The line determined, he swung about and stared straight up the slope. After a moment his eyes glittered expectantly, and he began a hurried ascent to the little bare patch he had detected.

Eagerness gave tempo to his heartbeat as he gained the spot and scanned diffidently a slender steel rod projecting six feet from the ground. Near the shining pole was an iron trapdoor flush with the ground.

Hastily the scientist gripped the ringhandle and swung back the door. Then he slid through the aperture. In the next moment he was standing rigid, in wondering contemplation of the weird setting, his feet ankle deep in a heavy, soft gravel.

The large room shivered to the whistling roar of two dynamos, half buried in the concrete floor. But the thing that struck Hale a sledge-hammer blow was the strangeness of the walls and ceiling.

They were literally alive with an unearthly glow that at first seemed a homogeneous mass, like a plaster of burning phosphorous. But as the blue-
white glare ceased to blind him completely, he made out breaks in the walls of fire, and at last discovered the secret.

From the low ceiling, like unearthly stalactites, hung hundreds of glowing mercury-vapor tubes. In regular lines of purple globes, they covered every inch of the roof. The four walls were the same. Large tubes bristled in the fashion of parasitic growths. Their combined heat and glare was tremendous.

Hale's first thought was, "What a waste of power!" For it was obvious that this many tubes could be needed by no earthly electrical equipment. They were simply burning up the energy as fast as the two dynamos could produce it.

It came to him slowly, then, the realization that waste was the raison d'être of this strange powerhouse-that the dynamos and tubes were here for no other reason than to draw power through the great motors and dissipate it in the tubes! They were accomplishing nothing here, but down on the hill they were literally sucking the life from a man!

Suddenly Hale was turning to spring up the iron ladder. In the good clean air once more, he paused, as though girding himself for a fight. It was so clear now, so fiendishly, murderously clear! Killeen had much at stake, and unless he could get down there in a matter of minutes, he would have won it!

## CHAPTER FOUR

## Wealth of the Ancients

HALE rang and pounded, and getting no immediate response he twisted the knob and flung the door wide. His blind rush carried him squarely into the path of the hurrying little Mayan girl.

Lana wore the tragic marks of gnaw-
ing grief. Her black eyes burned feverishly beneath an unnaturally pallid brow. Her bloodless lips were creased into a bitter line.

The thought shocked Hale that he was too late. But with her first words he gained reassurance.
"Oh, Doctor Hale!" she sobbed. "He's so . . . so weak. He says he doesn't even want to fight any longer. He just lies there and doesn't talk or move."

Hale muttered, paradoxically, "Thank God!" His long legs carried him swiftly down the hall to the room of death.

It was utterly quiet when he entered. Not even the sick man's labored breathing was audible. In the sickly daylight struggling through a tattered lace curtain, the room was sombre, dismally like a chamber already belonging to death.

The tired eyes of the explorer answered Hale's voice by opening a slit. He was on the point of relapsing into semi-consciousness when Hale's tense words ran through the room like living fire.
"Garlan!" his tones lashed metallically. "You've got to get out of here. There's death in this house!"

A hollow note of dry mirth broke from the other's lips. "Guess I-already knew-about that!"
"But you don't understand what I mean!" Hale pursued. "Outside the house you'll be safe. Here you'll die!"

Garlan's answer was to smile a little and close his eyes.

Hale's desperate gaze flashed past Lana to the door. "Where is Killeen?" he wanted to know.

Taking heart at last, Garlan half struggled up from the pillows and croaked, "What's that-devil-been doing?"

Hale seized his anger as a straw of
hope. If he could only replace the man's vanished strength of will with a temporary drive of hatred, he might be able to get him to his feet and out of here.

Now he bent close to him, fixed his keen blue eyes on the gaunt face. "Listen to me, Garlan," he bit out. "You're doing just what Killeen wants you toquitting! Because when you join Ruskin, he'll have won two treasures. One of them is the gold. The other is . . . Lana!"

Garlan's lassitude dissolved in wild terror "Lanal" he choked. "He can't -that damned-Hale, are you telling me the truth?"

John Hale repulsed his fierce stare with a level gaze. "Lana's quite the most beautiful woman I've ever known," he returned. "If I were of an envious turn of mind, I might conceivably watch you die with considerable satisfaction-especially with a fortune in gold also to be gained by your death. I might make myself so helpful to your widow that she could find a measure of consolation in my presence."

Garlan had struggled up now, his limbs shuddering in a racking ague. "But how could he do it, Hale?" he croaked. "He hasn't touched me. You can't kill this way."
"I can't," the scientists breathed, "but Killeen can! You told me he'd invented a process for refining gold electrically.* That same invention is killing you at this moment!"

[^10]$W^{\text {HEN }}$ it seemed the intent of shock must run on forever, Hale's breathless tones laced the silence. "Ruskin gave me a strange clue when he died. Just sketch of a dynamo, but that picture was a diagram for murder! It's the answer to how Killeen gets gold out of dross, just as it explains why Ruskin died.
"Killeen found a method of 'directionizing' the flow of energy required by a dynamo. He was able to draw streams of electrons from any spot he wished. Thus he broke down the simpler elements in the gold alloys, while the heavier metal resisted this 'sucking' force.
"But, Garlan, the human body offers poor resistance to the deadly field. For days you have been literally drained of your energy as the almost-free electrons in your tissues were torn away! Up on the hillside I found the vicious machine which is focused on this house. I discovered it because the ray changed the refracting power of the air above my observatory and ruined my eclipse pictures."

Garlan's breath was coming in hoarse gasps. "But why hasn't it hurt Killeen and Lana?" he protested.
"Because in other rooms of the house Killeen has secreted small amounts of some radioactive substance, which supplies the greedy rays with all they can take from that vicinity." Suddenly he straightened. "Where is he? If he's in this house, the sooner we can get you out the better."
Garlan started to answer. Unexpectedly then he fell back on the bed and commenced breathing heavily, his bony hands clutching the covers. In the same instant Hale felt a deadly heaviness come over his own limbs. Before he knew it, he was sitting stupidly on the floor.

Through his paralyzed brain thread-
ed a single thought: Killeen had tired of the game; he was ending it now by sending the full force of the ray into the house!

Invisible chains weighted him down as he struggled to his feet. He stumbled to the bed, seized Garlan and commenced shaking him. Every motion seemed to detract from his strength. "Garlan!" he muttered. "Garlan! Get on your feet, man! It's your only hope!"
But Garlan was unconscious. Hale's head pivoted as Lana's body struck the floor with a soft thump. A groan forced itself between his clenched teeth. He got his arms under the limp form on the bed and tensed himself to the effort of raising the man.

His neck muscles stood out in cords as he strained. His eyes were tightly shut with the agony of desperation. The seconds jarred through him like hammer blows. But Hale's bones were rubber, his muscles flaccid. He stumbled back and almost fell.

For a timeless interval he was unable to think. From some deep reservoir of strength there finally rose a new energy that stimulated mind and body. He turned and reeled from the room.

Hale reached his car and slumped to the running board. His eyes sought the slim rod of steel which was the source of this invisible death. He could not find it, but his brain conjured up the vision of a greed-crazed murderer at the controls of the machine.

Warm strength began to throb through his veins again, coloring the pallor of his cheeks. Doggedly he climbed into the car. The engine roared into life and he slewed out the driveway.

IIN John Hale's vision, the trees and banks flanking the tortuous mountain road blurred into a solid gray-
green. He took one hand from the wheel and got his powerful automatic out, laying it on the seat beside him. When he had reached the spot in the road nearest to the power-house, he stopped and sprang out.

Shrubs and rocks reared up like demons to stop him. Scratches crisscrossed his face and hands when he halted by the open trapdoor. Panting, he crouched and peered into the glaring interior of the room.

Aware of nothing but the menacing, high roar of the dynamos and the eyeaching force of the vacuum tubes, he squinted in vain toward the switchboard. But seconds were precious. If he waited until his vision cleared, it might be too late.
"Killeen!" he shouted. "Cut those switches, you fool!"

Suddenly, looming behind him, he made out the bulky form of the archaeologist. In the next moment he toppled headlong into the trap door opening from a blow on the head. A wrench fell beside him.

For an instant he lay dazed, then fought erect, gun in hand.

In one moment of horror he felt the gun torn from his fingers, saw Killeen's flat, swarthy countenance materialize out of the blue-white void, heard his taunting voice.
"Sleuth yourself out of this, Doctor!" came the challenge. "I'm through enduring interference and delays. When I leave here the road will be clear for me. And you'll have lost your first case!"

Hale's mind plunged at top speed. Here was menace that would not be deflected. He was surprised at the calmness of his own voice when he spoke.
"Perhaps you are right. But if I lose it will not be because you have shot me with my own gun. I'll have the satisfaction of seeing you die with me!"

Killeen had backed through the thick gravel to the control board. His eyes pinched. "Let's talk plainly, Doctor," he breathed. "After all . . . it isn't as though we were both going to leave here alive!"
"In fact," Hale smiled quietly, "neither of us is going to leave." His eyes shuttled to the dynamos, returned to capture Killeen's hesitant gaze. "Do you know what you are doing here? Besides killing your partner, I mean? You're drawing a terrific overload into those motors that the tubes can't take care of. I wonder what will happen, Killeen, when the metal in those dynamos has absorbed all the radiant energy it can hold!"

Hale's vigilant stare did not miss the subtle alteration of expression. But hope wilted as Killeen laughed.
"No use, Hale. I've worked every phase of this out. The tubes can handle any amount of power I can create. There isn't the slightest.

His last words trailed off as a low moan filled the room. It came from every part of the walls. And suddenly Hale knew what the sound was. It was the voice of the overloaded vacuum tubes substantiating his wild guessAnd with that realization came utter darkness. The tubes had burned out.

It was not fear of the gun that sent John Hale scrambling for the trapdoor. It was a deeper terror. An incalculable load was pouring into the dynamos, and not being consumed. It was storing up like water behind a dam. He knew what was due to happen even before the motors shrieked and scraped their protest and ground to a stop.

A mounting green light flashed into the room. The dynamos swelled like
huge green bubbles. Killeen stood frozen to the spot. The gun fell with a soft thud.
Hale sprawled on the ground outside and went scrambling on hands and knees from the trapdoor. Apprehension rode him brutally, widening his eyes and jerking every nerve in his body.
Without warning it happened. A muffled boom, as of a door being slammed in a far part of a large house, caused Hale to whirl. A vivid column of green brilliance shot straight into the sky. It seemed to eat at the very earth beneath it.

Then like a flame leaping from a campfire, it detached itself from the ground and faded away, a green plume against the blue sky.
Hale climbed to his feet to approach the gaping hole. In blank amazement he halted. Suddenly he understood the reason for the gray gravel in the powerhouse.

Glittering crystals of pure gold now covered the entire base of the hole! Thin though the layer was, there were several fortunes down there, for the "gravel" had been the gold of the Yucatan.
Hale sighed. And mingled with his wonder was a deep satisfaction that it was over. Down in the glen a man and a girl would already be feeling the stimulation of renewed life.

It was just before he turned away that he saw something which made him realize how efficiently the ray had done its work of burning out the dross it touched. In the middle of the golden sand, like a footprint in the snow, was the sprawling impression of a man's prostrate body. . . .


# LEGION OF MARS <br> BY FREDERIC ARNOLD KUMMER, JR. 

## Hard-bitten legionnaires, a mercenary Earthman, and a fervent missionary didn't mix with the Martians.

IT happened when I was just a youngster, holding down a trading station on Mars. I was a sergeant in the Alien Legion at the time. You remember the Legion. Scum of the cosmos, picked up in gutters throughout the Solar System, and supposed to keep the Martians in order while our traders stole the fillings out of their teeth. And me thinking it all glorious adventure and high romance!

My post was a place called Jerala. Smack in the middle of the Red Desert, twice as hot as hell and three times as

beating down outside the wireless shack like brass hammers, and his belly too full of Martian tong. He kept growling at the cards . . . we were playing black jack . . . and cursing one of our native servants for being slow in bringing ice, and taking dirty cracks at Wilke, our radio operator, for keeping the receiver open on Terrestrial, just because it reminded him of the girl he'd left in New York.

Around five o'clock, Martian, of course, I put on my coat and went over to the barracks to sober up my men for the night patrol. I had a squad of six, complete with heat guns, sand-skis, and sun helmets, and felt pretty important, even though my force consisted of one Jovian, as broad as he was tall, who could jump out of sight with one bound . . . and usually did at the first sign of trouble; two Venusians, always drunk; and three raddies, Martians, slinky birds who claimed to be pro-terrestrial but not to be trusted out of ray range. Still, with only a few hundred bulge-eyed, web-fingered desert aborigines to ride herd on, armed mostly with short native throwing knives and an occasional old-fashioned bullet gun they'd taken in trade, I wasn't bothered.

I'd just reached the door of the barracks when I heard a hell of a row, squealing, howling, like a small-sized riot. Wheeling about, I saw Blackie Slane standing in front of the radio shack with two of gur native servants, one in each hand, pounding their scaly, hairless heads together like a couple of coconuts and at the same time roaring out curses so loud it almost drowned the poor devils' cries.

I whipped out my gun, headed for the radio shack on the run. It looked like trouble. Slane was a big, solid man with dark hair and beard that gave him his nickname of Blackie. His nose had
been tinted by every strange drink in the solar system . . . he was the only man I ever saw who could hurl down Neptunian olo without a chaser . . . and was reported to have a wife and brats on every planet to say nothing of a couple of the asteroids. He'd started out as a smuggler, done time in the prison colony at Phobos, and was now legally robbing the Martian natives by exchanging alarm clocks, pocket radio sets, and cheap gold-filled watches for desert rubies, blue thorene crystals from the sand-caves, and skins of the Martian hulla, which is something like a kangaroo and worth more than sable, or even sea-otter, in the terrestrial market.

Well as I was saying, Blackie was beating those poor devils' heads together like a trap drummer working his cymbals, and a hundred or more natives kneeling around at the doors of their little conical huts, letting out queer cries for help to the sun, which they worshipped. Some of them, not contented with calling on the sun, were fondling their copper knives. Their ugly, squinched-up faces were motionless, as always, but the look in their round bulging eyes wasn't pretty.
I stuck my heat gun into Slane's back and told him to stop it. The two reddies were groaning on the sand, with concussion of the brain, or worse.
"How do you expect me to keep order in camp?" I growled at him, "if you start things like this? Go sleep it off . . . you're drunk!"

Blackie gave me an opaque look; his eyes were glazed.
"These damn thieving little devils," he muttered. "And the heat . . . it's getting me . . ."

That was all I needed to snap my frayed nerves. I leaped at him with rancor rising high.
"It's just as hot on my back as
yours!" I grated. "One more break like this, and I'll have your trading license canceled!"

Slane stared at me, his shaggy brows meeting in one straight line. He didn't make a pretty picture in his dirty cellosilk singlet, his wrinkled trousers stuffed into the tops of his old boots. His arms, I remember, were covered with purple blotches, burns from a score of heat ray battles. The crowd of reddies, sensing trouble, edged closer, watching the pair of us intently.
"Well?" I snapped, gripping my gun.
Still Slane didn't answer. I could see his big muscles tense, as though he were ready to spring. I knew if I missed my first shot . . .

Then I heard Wilke calling to me from the radio shack.
"The supply ship!" he yelled. "She's in!"

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T once the tension snapped. Slane and I both whirled about, faced the big patch of sand they humorously called the space port. And sure enough, there was the old Vestric, settling down on her columns of fire with my squad standing around acting like they hadn't been asleep all day.

Wilke ran to get the mail. His girl wrote him once a month. I followed to see if the ship had brought any tobacco.

The Vestric's main locks clanged open and a dark, bent little man came down the gangplank, rubbing his hands. He had on a dingy fibroid raincoat, though God knows he didn't need one on Mars, and behind him a porter was carrying an oversized trunk.

Slane, waiting for the cargo lifts to discharge his supply of trading trinkets, frowned, he must have thought the man a rival trader.
"And who the devil may you be?" he demanded, truculently.

The little fellow made motions like
washing his hands.
"John Anson, traveling man," he said. "Gold and silver electroplating done at rock-bottom prices. Maybe you gents got some silver service that needs replating.

I thought Blackie Slane would explode.
"Silver service!" he bellowed. "What in hell do you think this is . . . a suburban development?"
"No offense, sir . . no offense," Anson said hastily. "My business is with the natives, really. They're like children, fond of shiny things. Their gold-filled watches and chromiumplated knives get dull. I brighten them up . . ."

Children was right. I looked at the little man, grinning. There were plenty of his kind on Mars, in those days. Starting out with a pack on their backs and ending up millionaires. A ruby, perhaps, in payment for replating an alarm clock. Or a hulla skin for "transmuting" a dull iron bracelet into gold or silver. A good racket, since iron and copper were the only two metals found in any quantity on Mars.
"If I could find a room," Anson went on.

I told one of my men to give him a shakedown in the warehouse, turned to inspect our second visitor. A tall, stoop-shouldered man, dressed in sombre black. His eyes were grey and friendly and he looked a little like Abraham Lincoln.
"The Reverend Hezekiah Jones," he announced. "Come to do a little missionary work among the heathen."

That stopped me. I mumbled some sort of a greeting. Missionary work. . . .
"So happy to meet you, gentlemen," the Reverend Jones went on. "I bring the great traditions of Terra to the benighted natives of this lonely outpost
of the Lord. The spirit of law and order which has made our civilization great."

I didn't say anything. I was thinking of law and order, as represented by my half-drunk squad, Slane's products of civilization, guns and liquor, and the Christian spirit which most of us had left on Terra. I glanced at Slane. He was absolutely incandescent. His face was scarlet and his eyes as cold and bleak as a lunar landscape. The way he jumped you'd have thought he'd been bitten by one of those green, sharp-stinging Martian ants.
"No!" he roared, shaking a hairy fist. "By all space, no! I'll not have a mealy-mouthed psalm-singer in this post, stirring up trouble among the reddies, poking his long nose into my affairs! I'm damned if I will!" And he commenced to give his personal views on missionarying in the choicest language of nine planets.

The Reverend Hezekiah Jones stood very still while Slane was tearing loose. When it was over he straightened his thin shoulders.
"I am sorry," he said at last. "How can we blame the men of Mars for their sins if we of earth set them Satan's example?" His voice rose, thundering. "Repent, O wicked man, before it is too late!"

Slane's eyes were snapping like a spark-gap and his hand slid toward the heat gun at his waist. He was a dead shot . . . I'd seen him light a cigarette in a man's mouth at fifty feet without so much as singeing a mustache . . . and I figured it was time for me to show a little authority.
"All right, Slane," I said, stepping forward. "No rough stuff. If the Reverend wants to set up shop around here, nobody can stop him. Not while I'm in command of this post. Wilke, you take Mr. Jones down to the bar-
racks. Reckon we can find room for him there."
"Right!" Wilke nodded, grinning. "Come along, Reverend!"

WHEN they had left, I faced Slane. He was standing with his feet spread wide, thumbs hooked over his belt, beard cocked forward at a belligerent angle.
"Well," I said. "What's eating you? What do you care if this parson does a little soul-saving around here? It'd be a load off my shoulders if some of these murdering, thieving little devils got converted."

Slane laughed, harsh-like.
"You're a fool," he said slowly. "Can't you realize how much these little desert rats believe in their god, the Sun? And when this sky-pilot starts his 'enlightenment' there's going to be trouble! Big trouble! You'll see!"

I glanced toward the native quarter. In the square before their yellow-domed temple of the sun the little peddler, Anson, had already started his medicine show. He had changed his old raincoat for a scarlet robe and was making mystic passes over a small but efficient electrolysis outfit. All the gestures and hokum for "transforming" dull iron or muddy copper into gleaming silver or gold.
"Peddlers and preachers," I grinned. "Civilization's coming to Mars, Slane. Better put on a clean shirt and get converted!"
"Not while I know it!" Slane blazed. "Hell, trading's fair and square, with each party believing he's hooked the other! But when it comes to telling the reddies what they should think, or do, what gods to believe in, that's asking for trouble!"
"All of which means you've got a good thing here and don't want to lose
it," I chuckled. "Aloteh, Slane! See you in church!"

But Blackie, for all his blustering, was right. The next morning I took my six heroes for a week's patrol of the plains, hoping to sweat some of the tong out of them. And when I got back the village was changed.
"Not changed physically, of course. Everything looked the same. But the atmosphere was different. Before, the reddies, gliding along the twisty streets in their long dust robes, would nod, turn, as I went by, or maybe stop me with some complaint or petition. But the day I got back! Why, I just wasn't there! Not a nod, not a glance, not a word. I might have been invisible for all the attention I got. And I didn't like it.

Leaving my men at the barracks I made a bee-line for Slane's compound. Blackie was drunk. He was sprawled in a big chair, red-eyed, cleaning a heat gun. Little Anson sat in a corner, adding up some figures in a greasy notebook.
"Hello, Blackie," I grinned. "Have they made you deacon yet?"
"Gathol!" Slane snapped obscenely, and went on cleaning the gun.
"'Morning, Sergeant," Anson said, looking up. "Nice trip?"
"Dust-storms, sand-ants, and this cursed, killing heat," I answered. "What's wrong around here? The reddies seem a lt offish?"
"Offish?" Anson repeated. "Oh, no, sir, not at all. Very friendly. Fine village for trade, indeed it is. My first two days here I did a hundred dollars worth of plating, jewelry, ornaments, knives, and such. Now it's mirrors, flat, dish-like things to be silvered . . ."
"Mirrors?" Slane heaved himself out of the chair, his lips tight. Mirrors, you say?"
"Why, yes." The little peddler nod-
ded. "Dozens of them, copper with a silver reflecting surface. The high priest of the temple brought them to me. They'd been surfaced before, looked like, but the silver was beginning to peel off or wear through. Something to do with their sun worship, I guess. They're such children . . ."

Slane didn't say anything. He turned, began to bolt the doors and windows, then pulled a case of guns and ammunition from beneath the desk.
"Nuts," I said, shaking my head. "Still, with a face like his I don't blame him for being afraid of mirrors."
"Afraid of mirrors!" Slane whirled about, his black beard bristling. "Rings of Saturn! And they send innocent little pups like you out to handle the reddies! You'll find out . . ." He broke off, listening.

In the street outside a deep, hollow voice was echoing solemnly . . . the voice of the Reverend Hezekiah Jones. He was speaking in stilted Martian, the kind they teach at terrestrial schools, and was laying down the law with gentle firmness.

CURIOUS, I peered out. On the steps of one of the warehouses Jones' tall, spare frame was visible, still clothed, despite the blazing heat, in undertaker black. He looked more like old Abe Lincoln than ever. Wilke, who had religious leanings, was standing beside him, head bared and inviting sunstroke. The street was crowded with Martians, hundreds of them, very passive, their loose dust-robes swinging free from their shoulders. The red, ugly, wrinkled faces were absolutely blank, as always, and it seemed to me that there was an appraising, mocking gleam in their frog-like eyes. Hezekiah Jones must have felt their hostility, too, for he grew more persuasive than before.
"A god of gentleness, of peace, of love," he was saying. "Not a god of one country, of one race, one planet, but a Creator of all life, throughout the entire universe. Oh, my brothers, do not kneel before the sun, one of God's works no less wonderful than your own bodies, but before Him who has made a thousand suns . . ."
"It's coming now," Slane muttered. "I can feel it! Ah!" He drew a sharp breath.

The crowd of reddies had moved. They didn't shout or jump the way a mob on Earth would. Emotionless, faces inscrutable, without a ripple of excitement, they stepped forward, grabbed Jones and Wilke.
"Good God!" I muttered, snatching for my gun. "We've got to save them! Come on!" And I dashed out into the white-hot- sunlight, shooting as I ran.

Slane didn't join me. As I passed through the doorway I heard him mutter something about "damned skypilot." He wasn't risking his neck for the Reverend Hezekiah Jones.

I had no time to get sore over Slane's desertion. No sooner had I emerged from the house when a dozen knives came hurtling toward me. Instinctively I fell to one knee and the weapons flew over my head, rattled against the crystalloid walls of the compound. Some of them whistled through the doorway and I remember wondering what Anson must have thought to see the knives he'd so carefully silverplated come whizzing into the room.

Then I was squeezing the trigger of my heat gun, spraying the little devils with red blasts of flame. A dozen blackened, charred figures slumped to the rust-colored sand and a howl of rage arose from the others. Again I let them have it, and black ugly smoke went up from the crowded street. The smell of scorched flesh, like a charnal house,
made my stomach do flip-flops.

THE reddies were answering me now; their old-fashioned bullet guns made a hellish noise and I could see little spurts of dust rising from the roadway about me.
The group of Martians who held Jones and Wilke prisoner were dragging their captives back toward the big yellow-domed temple of the sun. I was afraid to fire for fear of hitting them. Then, over my head, came a blast of flame. Slane was getting in his licks.

As the reddies ducked for shelter, I made a dash for the group holding Wilke and Slane. Ancient bullet guns roared and I felt as though a hot brand had been drawn across my face.
"Lawrence!" Wilke yelled. "For God's sake, hurry!"

I wiped sweat from my eyes, dashed toward them. One of the reddies had a knife raised over Hezekiah Jones' chest. The parson, on his knees in the dirt, was praying. The frog-eyed little devils were howling like mad dogs.
I fired from the hip, a snap shot. Luck was with me. The reddy's arm became a blackened bone and the knife dropped to the ground. Another shot knocked over two more of them, and behind me Slane was keeping the rest of the screaming mob under cover with lightning-like jets of flame.

Suddenly the reddies dropped Wilke and Jones, took to their heels.
"Come on!" I muttered, grabbing the missionary's arm. "Back to Slane's compound!"
He nodded dazedly, followed me up the road. Bullets sang all about us and Wilke turned green at sight of the charred bodies littering the space in front of the trading post. Slane stood in the doorway, a gun in each hand, picking off the reddies as they popped up for a shot. Every now and then
you'd hear a scream from behind their huts or one of the warehouses they were using as a fort.
"Keep 'em back another minute!" I shouted. "We . . ."

But while I was calling to him a beam from a heat gun hissed past us and Wilke groaned, pitched forward to his face, blasted to eternity.
"Dirty renegades!" I heard Slane yell. "Damn their souls!"

We were only a step from the trading post now. Pushing the bewildered Hezekiah Jones through the doorway, I glanced back over my shoulder. There, in front of the barracks, lay my Jovian and the two Venusians, limp and sprawling. The three Martians, heat guns in hands, were passing out our spare weapons to the villagers.
"That's your Alien Legion!" Slane snarled. "Nice loyal rats!" He dragged me into the room, let loose a final heat blast, then kicked the door shut. "We've the Reverend Jones to thank for this!" And he shot a venemous glance at the missionary.

Hezekiah Jones was kneeling in a corner of the room, his face raised as he prayed. He wouldn't be any help in holding the fort, I realized. Anson either. The little peddler was rocking back and forth, hands over his face, muttering with fright. I swabbed blood from the gash on my face, crawled over to join Slane at the window.
"Not a chance," Blackie muttered. "Just a question of how many we can get before they nail us. Shoot fast, kid!"

INODDED, gripping my gun. The reddies had regained courage on receiving the supply of heat guns from the barracks. A dozen or so of them were perched about the warehouse, keeping us under cover while the rest crept across the square. I pecred over
the window sill, got in a couple of shots before a blast of flame from the snipers on the warehouse made me duck for safety.

Above the yelling of the reddies I could hear the hiss of Slane's gun at the other window, the preacher's mumbled prayers. We needed prayers, I figured. Still, I couldn't help but feel sorry for the Reverend Jones. He'd tried hard enough to convert the little devils . . . hadn't realized what he was doing. And now he felt that all this bloodshed was his fault. A tough spot for a man with a conscience and Slane's accusations weren't making it any easier for him.

The next five minutes were a lurid, blazing nightmare. Bullets and ray blasts churning up the air, Slane swearing endlessly, and little Anson whimpering like a lost child.
"Yellow dog!" Slane growled. "He and that mealy-mouthed psalm-singer start this and we pay for it! Why don't they die like men, fighting?"
I was too busy at my loophole to answer. The reddies were close now, and the heat had me so groggy that I couldn't even hit the warehouse. Hot? It must have been 200 in that room. The trading post, under the ray barrage, was an inferno. Glass melting in the windows, door blown to flinders, and the crystalloid walls so hot you couldn't touch them. For once I thanked my stars that wood was too scarce on Mars for building.

Slane, at the other end of the room, looked like a demon from the pit. His black beard was singed, his clothes scorched, his face dark with fury and soot. It didn't seem like a second before our guns went dead. Slane and I were fumbling with blistered fingers, trying to put new batteries into them when the remains of the door gave way and the room was full of Martians.

Anson, Jones, and I were grabbed,
bound, before we knew it, but Blackie Slane put up a scrap. He sailed into them, fists flying.
"Don't let 'em get you alive!" he yelled. "Those mirrors. . . ." Which was as far as he got before he went down under a mass of rust-colored flesh.

Soon as Blackie was bound, they carried the four of us out. Down the dusty little street, past poor Wilke's blackened body, and into the maze of acornshaped huts behind the warehouses. First thing we knew, we were in the stone-flagged square in front of their big yellow-domed House of the Sun. Dazed, blinking in the fierce sunlight, we stood, all four in a row. We must have made a pretty picture. Jones praying; Slane swearing; Anson mumbling to himself; and me with my knees like castinets, wondering what came next.

IDIDN'T have long to wait. The doors of the big temple opened and a squat, toad-faced Martian came out. Naked, except for a little girdle, he was, and every square inch of him painted a sickly yellow. He walked slowly across the square toward us, his bare feet kicking up spurts of the omnipresent reddish dust.
"Khafor, Child o' the Sun," Slane muttered. "High mogul of the works." He shot a sulphurous glance at Hezekiah Jones. "We've you and your pious blathering to thank for this! And me, who don't even believe in your God, up for the same offense!"

Jones, standing very still, head bowed, didn't answer. The whole thing was like a dream to me. The dusty square, the silent, dull-faced reddies, the big dome-shaped House of the Sun. I'd often wondered what went on inside it. We knew so little of the reddies, their customs, their habits, their beliefs. They never talked with us, except to
trade. And now we were to find out. The yellow man slid his big lizard-like eyes to us, began to speak.
"Men of earth!" he said solemnly. "For long years we have traded, dwelt together in peace, neither questioning the other's beliefs. Now there comes this terrestial bringing new gods, seeking to overthrow the mighty Sun. It may be that his words are true, that the Sun is but a child of his gods. We have brought you here to seek the truth. The face of the Flame of Heaven shall be turned toward you. If, as no other man has done, you can look upon it and live, then surely we shall follow your new faith forever. If you fail, we shall know that our god, the Sun, is stronger than yours."
"No!" Jones' voice was agonized. "Ours is a religion of love, not force!"
"Yet you have said," the yellow man droned, "that your Almighty opened seas, threw down walls, made the sun stand still. Surely to dim it now were a small thing! Let the test begin!"

AT these words, two wooden-faced reddies appeared, carrying a machine of some sort, covered by a bloodred cloth. At sight of it a sibilant hiss went up from the crowd about us. Very carefully the yellow men removed the cloth, revealing a curious jumble of bright, dish-shaped reflectors, set upon a light wooden framework.
"Ha!" Anson muttered. "The mirrors I silver-plated! Why should they use mirrors. . . ."
"You'll find out!" Slane rumbled. "Mr. Jones has given us all a chance to become early Martian martyrs! Why don't you think him, Anson? I'm sure he'll thank you for silvering thase mirrors! Maybe this will make him a saint! Rings of Saturn! If I could only get my hands free, I'd fix the pair of you before I die!"

And still Hezekiah Jones said nothing. His hollow, gaunt face was turned toward the sky and his lips moved faintly. Anson's teeth clicked like shaken dice.

Khafor, the yellow man, pointed to Slane. His two attendants placed a small iron chair some distance from the mirror-machine and pushed Blackie into it. For a moment they fiddled with the gleaming reflectors, then swung the machine about. Light from a hundred mirrors, all focused on one point, played upon Slane like a giant searchlight. The trader commenced to swear, not at the reddies, but at Hezekiah Jones; cold fury danced in his eyes and his fingers worked convulsively.

I was still confused as to what they were up to, but suddenly it began to dawn on me. They were slowly pushing the collection of mirrors closer to Slane! And as they did so, the diffused circle of light came together, grew smaller, like the light under a magnifying glass, as it approached the focal point. Now it was the size of a dinner plate, on the middle of Slane's chest. And Blackie was beginning to squirm, his face red, sweaty. It just didn't seem real to me that this hellish business could be going on within a stone's throw of the barracks, the trading post. Blackie, facing those mirrors.
"Good God!" Anson screamed. "They're going to burn a hole right through him!"

ICOULDN'T take my eyes from Slane. The circle of light was now only the size of a saucer and little wisps of smoke were going up from his chest. The front of his shirt was turning brown and his eyes were bulging like a Martian's. I began to feel sick. . . . I was only a youngster . . . and Anson whimpered like a whipped dog.

The yellow man leaned forward,
watching Slane intently.
"Where are your gods, earth-men?" he murmured. "Can they not raise up a cloud to veil the face of the Sun?"

But the sky was never clearer and clouds of any sort were a rarity on Mars. Like white rain the sunlight poured down upon the square, to be caught by the flashing mirrors and jetted upon Slane's chest. The crowd of reddies nodded with a sort of placid satisfaction as Blackie groaned.

Khafor pushed the mirrors nearer, and the beam of light shrank until the spot on Blackie's chest was like a whitehot dime. The smoke came faster now, and there was a smell like grilled beefsteak in the air. Slane's muscles stood out in knobs as he fought against the ropes. The atmosphere was tense, brittle. I remember thinking, dizzy from the heat, that the square was a fragile glass bubble, getting more and more full of emotion until it approached the inevitable breaking point.
"Where are your gods, earth-men?" Khafor chanted softly. "Soon the Sun, the Flame of Heaven, will have swallowed this one's soul!"

As he spoke, Hezekiah Jones fell forward to his knees. The look on his face was somehow like organ music in church. It made you feel religious just to see him. Did me, anyhow.
"Give us a sign, O Lord," he said. "Spare this man who has denied Thee that he may be converted into the path of righteousness. Give us a sign that these poor heathens may know Your presence. Help us, Lord!"

And at that exact instant it happened. A shattering string of explosions like the roar of a rocket exhaust, and a cloud of powdery smoke. Anson gasped and I heard Hezekiah Jones say, "Thank Thee, Lord!" The jumble of mirrors and its framework was blown to bits! Smashed, ruined, wrecked, without a
human hand having touched it! No machinery, no engines, to have gone haywire . . . just mirrors, shattered by . . . a miracle.

RIGHT away I felt my knees get even weaker and I began to think of my misspent, irreligious life. There were the broken mirrors, the yellow Child of the Sun face down, cut and bleeding, and the reddies with their noses in the dust. If I hadn't been tied up, I'd have joined them.
All at once a little fellow ran out of the crowd, cut our bonds, and fell on his face again. Hezekiah Jones stretched his long limbs and began to preach, his voice rolling like triumphant thunder across the square and the reddies murmuring in awed assent.
Well, I suppose what'd happened would have been enough to convince any normal man but I'm from Missouri and curious by nature. So after my first fear had worn off, I kept my eye on the reflectors and began to notice things. For one, that explosion hadn't really done much damage, and for another, the copper mirrors hadn't been affected much except that their silver surface had been blown off. Which struck me funny. So while the Reverend Jones is orating, I turned to little Anson, kneeling beside me, and tapped his arm.
"Listen," I whispered. "Just what did you do to those mirrors?"
"Do?" He rubbed his hands nervously. "Why I silvered them, sir! Indeed that's all I did! Of course" . . . he gave me a confidential glance . . . "just between the two of us, I ran out of silver on the bracelets and knives. And when they started bringing me those, now, looking glasses, I couldn't turn away trade, could I? Oh, I was worried for fear of losing good business, yes indeed! Tried everything in Mr.

Slane's warehouse, hoping to get something that would shine like silver. And at last I found some cheap hardware, dirty grey antimony, but it came out just like silver in electrolysis. How should the Martians know the difference, so long as it was shiny? Anyway, I charged less for it. I bought some of the cheap grey dishes from Mr. Slane and used them, only he don't know what for. Trade secret, Mr. Lawrence, eh? You won't say anything, now will you? Nobody would know if it's shiny like silver, and those priests said there would be trouble if I didn't plate the mirrors."
Well, right there the light dawned. Slane had a lot of antimony junk, the same as is used for ashtrays and such back on Earth. Dirty grey, as Anson said, but laid on pure by electrolysis, it shines like silver. And when you get it pure, it does other things, too. Hit it a crack, or heat it a bit, and . . . bam! it explodes! He'd plated those mirrors with pure, explosive antimony and the heat of the sun, or maybe the rough handling of the reddies, had set off the plating, wrecked the machine!
I was just about to laugh when Anson jogged my elbow.
"Ruin my business if it got around about my using the antimony," he muttered. "Always fair and square, with real silver and gold, but them priests were so threatening and I didn't have time to order any supplies. You won't say anything, eh, Mr. Lawrence?"
At that moment my gaze fell upon Blackie Slane. He was still sitting in the iron chair, eyes on Hezekiah Jones and face dazed, kind of rapt-like. His lips were moving and they weren't cusswords he was saying.
"No, Anson," I said slowly, "I won't say anything." And I knelt down to join the Reverend Jones' prayer of thanksgiving.

# Finding 75 MILE GUNS 

# The part science played in locating Big Bertha, the most terrifying weapon of the World War 

IN MARCH, 1918, the Germans set up three 75 -mile guns in St. Gobain Wood, about 72 miles from Paris, their emplacement site being chosen in the forest's densest portion. Because of their weight, the huge guns had to be hauled by railway. Trees were hewn down for a clearing just wide enough for a railroad track. The guns hauled to their emplacement, the track was effectually hidden by pulling together the tops of the tallest trees on each side and tying them with wire. The guns were covered with netting on which green cloth was laid. To deceive aerial observers, a fake railway was constructed miles away in another part of the woods, the ties and tails being laid so as to show up plainly. From this discovery-proof concealment the enemy thought it would take but a few hours to make Paris terror-stricken.
On March 23, the first shell fell in Paris. No one was hurt. A few minutes later another fell near a crowded subway entrance, killing eight persons and wounding fourteen. The shelling continued until 143 persons were dead and over 300 injured. As amazing as the bombardment itself is the fact that only a few hours after the first projectile's arrival, the French Army knew almost the exact location of the enemy's monster guns, and their number, that there were six:-three railway carriages with two guns on each. Before 24 hours had passed, the army moved two heavy railway guns to a front sector and began firing at a certain spot in St. Gohain Wood, 30 miles distant. The very first shell fell so close to Enemy Gun Numher One that it killed the second officer-in-command and wounded six crew memhers. The mechanisms of the huge guns being as delicately adjusted as that of a fine watch, the explosions of other French shells jarred them so out of adjustment that the guns were useless
for accurate firing. Too, their crews fled to safety. How did the French locate these guns so quickly?

First, when they struck buildings, the shells indicated they came from the northeast. Then, one crashed through a church wall and its floor, not exploding till it reached the basement. From thls shell, their descent angle was gaused, and from its fragments its weight was ascertained:-270 pounds. On these few facts France's best mathematicians and astronomers applied their skill. A projectile weighing 270 pounds, to travel a mile2 -second speed, would have to leave the gun's barrel under close to a million pounds of pressure. Air resistance being less in the rarefied atmosphere, the shell had, at a 24 -mile height, lost speed because of the gravity pull, its speed being reduced to less than half a mile a second. Then, in its descent it bad picked up speed until the heavier air zone was reached, which had again slackened its speed.

Astronomers figured it thus: The shell's time in the air was 3 minutes and 4 seciaids:-and it had come from northeast. Allowances were made for the earth's rotation, because in that brief while, the projectile's target:- the church:moved eastward. Too, allowance was made for the air's temperature and variable densities, and the wind's direction and velocity when the shell had descended within a few thousand feet of its target. All these figures on paper, the astronomers computed the distance to the shell's starting point as carefully as that to a newly discovered star. The result gave the gun's position as $722 / 10$ miles northeast of the church, at a spot in St. Gobain Wood. With this fact in their possession, the French gunners were able to score an almost direct hit on the foe's otherwise discovery-proof concealment.

William P. Schramm

# WHAT IS LIFE ON OTHER WORLDS LIKE? 

You will be intensely interested in the new series by artist PAUL
beginning in the first issue of
FANTASTIC ADVENTURES
This full color series will eventually cover the entire solar system. The first is "The Man from Mars," the second, "The Man from Venus." Don't miss a single one of the most fascinating scientific presentations ever devised.



KARL FRANTOR found the prospect a terribly dismal one. From low-hanging clouds, fell eternal misty rain; squat, rubbery vegetation with its dull, reddish-brown color stretched away in all directions. Now and then a Hop-scotch Bird fluttered wildly above them, emitting plaintive squawks as it went.

Karl turned his head to gaze at the tiny dome of Aphrodopolis, largest city on Venus.
"God," he muttered, "even the dome is better than this awful world out here." He pulled the rubberized fabric of his coat closer about him, "I'll be glad to get back to Earth again."

He turned to the slight figure of Antil, the Venusian, "When are we coming to the ruins, Antil?"

There was no answer and Karl noticed the tear that rolled down the Venusian's green, puckered cheeks. Another glistened in the large, lemur-like eyes; soft, incredibly beautiful eyes.
The Earthman's voice softened,
"Sorry, Antil, I didn't mean to say anything against Venus."

Antil turned his green face toward Karl, "It was not that, my friend. Naturally, you would not find much to admire in an alien world. I, however, love Venus, and I weep because I am overcome with its beauty." The words came fluently but with the inevitable distortion caused by vocal cords unfitted for harsh languages.
"I know it seems incomprehensible to you," Antil continued, "but to me Venus is a paradise, a golden land-I cannot express my feelings for it properly."
"Yet there are some that say only Earthmen can love," Karl's sympathy was strong and sincere.

The Venusian shook his head sadly, "There is much besides the capacity to feel emotion that your people deny us."

Karl changed the subject hurriedly. "Tell me, Antil, doesn't Venus present a dull aspect even to you. You've been to Earth and should know. How can this eternity of brown and gray compare to the living, warm colors of Earth."
"It is far more beautiful to me. You forget that my color-sense is so enormously different from yours.* How can I explain the beauties, the wealth of color in which this landscape abounds." He fell silent, lost in the wonders he spoke of, while to the Terrestrial the deadly, melancholy gray remained unchanged.
"Someday," Antil's voice came as from a person in a dream, "Venus will once more belong to the Venusians. The Earthlings shall no longer rule us and the glory of our ancestors shall return to us."

[^11]Karl laughed, "Come, now, Antil, you speak like a member of the Green Bands, that are giving the government so much trouble. I thought you didn't believe in violence."
"I don't, Karl," Antil's eyes were grave and rather frightened, "but the extremists are gaining power and I fear the worst. And if-if open rebellion against Earth breaks out, I must join them."
"But you disagree with them."
"Yes, of course," he shrugged his shoulders, a gesture he had learned from Earthmen, "we can gain nothing by violence. There are five billion of you and scarcely a hundred million of us. You have resources and weapons while we have none. It would be a fool's venture and even should we win, we might leave such a heritage of hatred that there could never be peace between our two planets."
"Then why join them?"
"Because I am a Venusian."
The Earthman burst into laughter again, "Patriotism, it seems, is as irrational on Venus as on Earth. But come, come, let us proceed to the ruins of your anctent city. Are we nearly there?"
"Yes," answered Antil, "it's a matter of little more than an Earth mile now. Remember, however, that you are to disturb nothing. The ruins of Ash-taz-zor are sacred to us, as the sole existing remnant of the time when we, too, were a great race, rather than the degenerate remains of one."

THEY walked on in silence, slogging through the soft earth beneath, dodging the writhing roots of the Snaketree, and giving the occasional Tumbling Vines they passed a wide berth.

It was Antil then who resumed conversation.
"Poor Venus." His quiet wistful voice was sad. "Fifty years ago the

Earthmen came with promises of peace and plenty-and we believed. We showed them the emerald mines and the $j u j u$ weed and their eyes glittered with deisre. More and more came, and their arrogance grew. And now-"
"It's too bad, Antil," Karl said, "but you really feel too strongly about it."
"Too strongly! Are we allowed to vote? Have we any representation at all in the Venusian Provincial Congress? Aren't there laws against Venusians riding in the same strato-cars as Earthlings, or eating in the same hotel, or living in the same house? Are not all colleges closed to us? Aren't the best and most fertile parts of the planet pre-empted by Earthlings? Are there any rights at all that Terrestrials allow us upon our own planet?"
"What you say is perfectly true, and I deplore it. But similar conditions once existed on Earth with regard to certain so-called "inferior races," and in time, all those disabilities were removed until today total equality reigns. Remember, too, that the intelligent people of Earth are on your side. Have I, for instance, ever displayed any prejudice against a Venusian?"
"No, Karl, you know you haven't. But how many intelligent men are there? On Earth, it took long and weary millennia, filled with war and suffering, before equality was established. What if Venus refuses to wait those millennia?"

Karl frowned, "You're right, of course, but you must wait. What else can you do?"
"I don't know-I don't know," Antil's voice trailed into silence.

Suddenly, Karl wished he hadn't started on this trip to the ruins of mysterious Ash-taz-zor. The maddeningly monotonous terrain, the just grievances of Antil had served to depress him greatly. He was on the point of calling
the whole thing off when the Venusian raised his webbed fingers to point out a mound of earth ahead.
"That's the entrance," he said, "Ash-taz-zor has been buried under the soil for uncounted thousands of years, and only Venusians know of it. You're the first Earthman ever to see it."'
"I shall keep it absolutely secret, Antil. I have promised."
"Come then."
Antil brushed aside the lush vegetation to reveal a narrow entrance between two boulders and beckoned to Karl to follow. Into a narrow, damp corridor they crept. Antil drew from his pouch a small Atomite lamp, which cast its pearly white glow upon walls of dripping stone.
"These corridors and burrows," he said, "were dug three centuries ago by our ancestors who considered the city a holy place. Of late, however, we have neglected it. I was the first to visit it in a long, long time. Perhaps that is another sign of our degeneracy."

For over a hundred yards they walked on straight ahead and then the corridor flared out into a lofty dome. Karl gasped at the view that lay before his eyes. There were the remains of buildings; architectural marvels unrivaled on Earth since the days of Periclean Athens. But all lay in shattered ruins, so that only a hint of the city's magniificence remained.

Antil led the way across the open space and plunged into another burrow that twisted its way for half a mile through soil and rock. Here and there, side-corridors branched off and once or twice Karl caught glimpses of ruined structures. He would have investigated had not Antil kept him on the path.

AGAIN they emerged, this time before a low, sprawling building constructed of a smooth, green stone. Its
right wing was utterly smashed, but the rest seemed scarcely touched.

The Venusian's eyes shone; his slight form straightened with pride. "This is what corresponds to a modern museum of arts and sciences. In this you shall see the past greatness and culture of Venus."

With high excitement, Karl entered -the first Earthman ever to see these ancient achievements. The interior, he found, was divided into a series of deep alcoves, branching out from the long central colonnade. The ceiling was one great painting that showed dimly in the light of the Atomite lamp.

Lost in wonder, the Earthman wandered through the alcoves. There was' an extraordinary sense of strangeness to the sculptures and paintings about him; an unearthliness that doubled their beauty.

Karl realized that he missed something vital in Venusian art simply because of the lack of common ground between his own culture and theirs, but he could appreciate the technical excellence of the work. Especially, did he admire the color-work of the paintings which went far beyond anything he had ever seen on Earth. Cracked, faded, and scaling though they were, there was a blending and a harmony about them that was superb.
"What wouldn't Michelangelo have given," he said to Antil, "to have the marvelous color perception of the Venusian eye."

Antil inflated his chest with happiness. "Every race has its own attributes. I have often wished $m y$ ears could distinguish the slight tones and pitches of sound the way it is said Earthmen can. Perhaps I would then be able to understand what it is that is so pleasing about your Terrestrial music. As it is, its noise is dreadfully monotonous to me."

They passed on, and every minute Karl's opinion of Venusian culture mounted higher. There were long, narrow strips of thin metal, bound together, covered with the lines and ovals of Venusian script-thousands upon thousands of them. In them, Karl knew, might lie such secrets as the scientists of Earth would give half their lives to know.

Then, when Antil pointed out a tiny six-inch high affair, and said that, according to the inscription, it was some type of atomic converter with an efficiency several times any of the current Terrestrial models, Karl exploded.
"Why don't you reveal these secrets to Earth. If they only knew your accomplishments in ages past, Venusians would occupy a far higher place than they do now."
"They would make use of our knowledge of former days, yes," Antil replied bitterly, "but they would never release their stranglehold on Venus and its people. I hope you are not forgetting your promise of absolute secrecy."
"No, I'll keep quiet, but I think you're making a mistake."
"I think not," Antil turned to leave the alcove but Karl called to him to wait.
"Aren't we going into this little room here?" he asked.

Antil whirled, eyes staring, "Room? What room are you talking about? There's no room here."

Karl's eyebrows shot up in surprise as he mutely pointed out the narrow crack that extended half way up the rear wall.

The Venusian muttered something beneath his breath and fell to his knees, delicate fingers probing the crack.
"Help me, Karl. This door was never meant to be opened, I think. At least there is no record of its being here, and I know the ruins of Ash-taz-zor
perhaps better than any other of my people."

The two pushed against the section of the wall, which gave backward with groaning reluctance for a short distance, then yielded suddenly so as to catapult them into the tiny, almost empty cubicle beyond. They regained their feet and stared about.

THE Earthman pointed out broken, ragged rust-streaks on the floor, and along the line where door joined wall. "Your people seem to have sealed this room up pretty effectively. Only the rust of eons broke the bonds. You'd think they had some sort of secret stored here."
Antil shook his green head, "There was no evidence of a door last time I was here. However-" he raised the Atomite lamp up high and surveyed the room rapidly "there doesn't seem to be anything here, anyway."

He was right. Aside from a nondescript oblong chest that squatted on six stubby legs, the place contained only unbelievable quantities of dust and the musty, almost suffocating smell of long-shut-up tombs.

Karl approached the chest, tried to move it from the corner where it stood. It didn't budge, but the cover slipped under his pressing fingers.
"The cover's removable, Antil. Look!" He pointed to a shallow compartment within, which contained a square slab of some glassy substance and five six-inch long cylinders, resembling fountain-pens.
Antil shrieked with delight when he saw these objects and for the first time since Karl knew him, lapsed into sibilant Venusian gibberish. He removed the glassy slab and inspected it closely. Karl, his curiosity aroused, did likewise. It was covered with closelyspaced, vari-colored dots, but there
seemed no reason for Antil's extreme glee.
"What is it, Antil?"
"It is a complete document in our ancient ceremonial language. Up to now we have never had more than disjointed fragments. This is a great find."
"Can you decipher it?" Karl regarded the object with more respect.
"I think I can. It is a dead language and I know little more than a smattering. You see, it is a color language. Each word is designated by a combination of two, and sometimes three, colored dots. The colors are finely differentiated, though, and a Terrestrial, even if he had the key to the language, would have to use a spectroscope to read it."
"Are you going to work on it now?"
"I think so, Karl. The Atomite lamp approximates normal daylight very closely and I ought to have no trouble with it. However, it may take me quite a time so perhaps you'd better continue your investigation. There's no danger of your getting lost, provided you remain inside this building."
Karl left, taking a second Atomite lamp with him, left Antil, the Venusian, bent over the ancient manuscript, deciphering it slowly and painfully.

TWO hours past before the Earthman returned but when he did Antil had scarcely changed his position. Yet, now, there was a look of horror on the Venusian's face that had not been there before. The "color" message lay at his feet, disregarded. The noisy entrance of the Earthman made no impression upon him. As if ossified, he sat in unmoving, staring fright.

Karl jumped to his side, "Antil, Antil, what's wrong?"
Antil's head, turned slowly, as though moving through viscous liquid, and his
eyes gazed unseeingly at his friend. Kard grasped the other's thin shoulders and shook him unmercifully.

The Venusian came to his senses. Writhing out of Karl's grasp he sprang to his feet. From the desk in the corner he removed the five cylindrical objects, handling them with a queer sort of reluctance, placing them in his pouch. There, likewise, did he put the slab he had deciphered.

Having done this, he replaced the cover on the chest and motioned Karl out of the room, "We must go now. Already we have stayed too long." His voice had an odd, frightened tone about it that made the Earthman uncomfortable.

Silently, they retraced their steps until once more they stood upon the soaked surface of Venus. It was still day, but .twilight was near. Karl felt a growing hunger. They would need to hurry if they expected to reach Aphrodopolis before the coming of night. Karl turned up the collar of his slicker, pulled his rubberized cap low over his forehead and set out.

Mile after mile passed by and the domed city once more rose upon the grey horizon. The Earthman chewed at damp ham sandwiches, wished fervently for the comfortable dryness of Aphrodopolis. Through it all, the normally friendly Venusian maintained a stony silence, vouchsafing not so much as a glance upon his companion.

Karl accepted this philosophically. He had a far higher regard for Venusians than the great majority of Earthmen, but even he experienced a faint disdain for the ultra-emotional character of Antil and his kind. This brooding silence was but a manifestation of feelings that in Karl would perhaps have resulted in no more than a sigh or a frown. Realizing this, Antil's mood scarcely affected him.

Yet the memory of the haunting fright in Antil's eyes aroused a faint unease. It had come after the translation of that queer slab. What secret could have been revealed in that message by those scientific progenitors of the Venusians?

It was with some diffidence that Karl finally persuaded himself to ask, "What did the slab say, Antil? It must be interesting, I judge, considering that you've taken it with you."

Antil's reply was simply a sign to hurry and the Venusian thereupon plunged into the gathering darkness with redoubled speed. Karl was puzzled and rather hurt. He made no further attempt at conversation for the duration of the trip.

When they reached Aphrodopolis, however, the Venusian broke his silence. His puckered face, drawn and haggard, turned to Karl with the expression of one who has come to a painful decision.
"Karl," he said, "we have been friends, so I wish to give you a bit of friendly advice. You are going to leave for Earth next week. I know your father is high in the councils of the Planetary President. You yourself will probably be a personage of importance in the not-too-distant future. Since this is so, I beg you earnestly to use every atom of your influence to a moderation of Earth's attitude toward Venus. I, in my turn, being a hereditary noble of the largest tribe on Venus, shall do my utmost to repress all attempts at violence."

The other frowned, "There seems to be something behind all this. I don't get it at all. What are you trying to say?"
"Just this. Unless conditions are bettered-and soon-Venus will rise in revolt. In that case, I will have no choice but to place my services at her
feet and then Venus will no longer be defenseless."

These words served only to amuse the Earthman. "Come, Antil. Your patriotism is admirable, and your grievances justified, but melodrama and chauvinism don't go with me. I am, above all, a realist."

There was a terrible earnestness in the Venusian's voice. "Believe me, Karl, when I say nothing is more real than what $I$ tell you now. In case of a Venusian revolt, I cannot vouch for Earth's safety."
"Earth's safety!" the enormity of this stunned Karl.
"Yes," continued Antil, "for I may be forced to destroy Earth. There you have it." With this, he wheeled and plunged into the underbrush on the way back to the little Venusian village outside the great dome.

## CHAPTER II

## A Frightful Weapon

FIVE years passed-years of turbulent unrest and Venus stirred in its sleep like an awakening volcano. The short-sighted Terrestrial masters of Aphrodopolis, Venusia, and other domed cities cheerfully disregarded all danger signals. When they thought of the little green Venusians at all it was with a disdainful grimace as if to say "Oh, THOSE things!"
But "those things" were finally pushed beyond endurance and the nationalistic Green Bands became increasingly vociferous with every passing day. Then, on one grey day, not unlike the grey days preceding, crowds of natives swarmed upon the cities in organized rebellion.
The smaller domes, caught by surprise, succumbed. In rapid succession New Washington, Mount Vulcan, and

St. Denis were taken together with the entire eastern continent. Before the reeling Terrestrials realized what was happening, half of Venus was no longer theirs.

Earth, shocked and stunned by this sudden emergency-which, of course, should have been foreseen-sent arms and supplies to the inhabitants of the remaining beleaguered towns and began to equip a great space fleet for the recovery of the lost territory.
Earth was annoyed but not frightened, knowing that ground lost by surprise could easily be regained at leisure, and that ground not now lost would never be lost. Or such, at least, was the belief.

Imagine, then, the stupefaction of Earth's leaders as no pause came in the Venusian advance. Venusia City had been amply stocked with weapons and food, her outer defenses were up, the men at their posts. A tiny army of naked, unarmed natives approached and demanded unconditional surrender. Venusia refused haughtily and the messages to Earth were mirthful in their references to the unarmed natives who had become so recklessly flushed with success.
Then, suddenly, no more messages were received and the natives took over Venusia.
The events at Venusia were duplicated, over and over again, at what should have been impregnable fortresses. Even Aphrodopolis itself, with half a million population, fell to a pitiful five hundred Venusians. This, in spite of the fact that every weapon known to Earth was available to the defenders.

The Terrestrial Government suppressed the facts and Earth itself remained unsuspecting of the strange events on Venus, but in the inner councils, statesmen frowned as they listened
to the strange words of Karl Frantor, son of the Minister of Education.

JAN HEERSEN, Minister of War, rose in anger at the conclusion of the report.
"Do you wish us to take seriously the random statement of a half-mad Greenie and make our peace with Venus on its own terms? That is definitely and absolutely impossible. What those damned beasts need is the mailed fist. Our fleet will blast them out of the Universe and it is time that it were done."
"The blasting may not be so simple, Heersen," the grey-haired, elder Frantor rushed to his son's defense. "There are many of us who have all along claimed that the Government policy toward the Venusians was all wrong. Who knows what means of attack they have found and what, in revenge, they will do with it."
"Bah! Fairy Tales!" exclaimed Heersen, "You treat the Greenies as if they were people. They are animals and should be thankful for the benefits of civilization we have brought them. Remember, we're treating them much better than some of our own Earth races were treated in our early history, the Red Indians for example."

Karl Frantor burst in once more in an agitated voice, "We must investigate, sirs! Antil's threat is too serious to disregard, no matter how silly it sounds -and in the light of the Venusian conquests, it sounds anything but silly. I propose that you send me with Admiral von Blumdorff, as a sort of envoy. Let me get to the bottom of this before we attack them."

The saturnine Earth President, Jules Debuc, spoke now for the first time. "Frantor's proposal is reasonable, at least. It shall be done. Are there any objections?"

There were none, though Heersen
scowled and snorted angrily. Thus, a week later, Karl Frantor accompanied the_space armada of Earth when it set off for the inner planet.

$I^{T}$T was a strange Venus that greeted Karl after his five year's absence. It was still its old soaking self, its old dreary, monotony of white and gray, its scattering of domed cities-and yet how different.

Where before the haughty Terrestrials had moved in disdainful splendor among the cowering Venusians, now the natives maintained undisputed sway. Aphrodopolis was a native city entirely, and in the office of the former governor sat-Antil.

Karl eyed him doubtfully, scarcely knowing what to say. "I rather thought you might be king-pin," he managed at length. "You-the pacifist."
"The choice was not mine. It was that of circumstance," Antil replied. "But you! I did not expect you to be your planet's spokesman."
"It was to me that you made your silly threat years ago and so it is I who was most pessimistic concerning your rebellion. I come, you see, not unaccompanied," his hand motioned vaguely upward where spaceships lazed motionless and threatening.
"You come to menace me?"
"No! To hear your aims and your terms."
"That is easily accomplished. Venus demands its independence and its acceptance by Earth as an equal and sovereign power. In return, we promise friendship, together with free and unrestricted trade."
"And you expect us to accept all that without a struggle."
"I hope you do-for Earth's own sake."

Karl scowled and threw himself back
in his chair in annoyance, "For God's sake, Antil, the time for mysterious hints and bogeys has passed. Show your hand. How did you overcome Aphrodopolis and the other cities so easily."
"We were forced to it, Karl. We did not desire it," Antil's voice was shrill with agitation. "They would not accept our fair terms of surrender and began to shoot their Tonite guns. We-we had to use the-the weapon. We had to kill most of them afterward-out of mercy."
"I don't follow. What weapon are you talking about?"
"Do you remember that time in the ruins of Ash-taz-zor, Karl? The hidden room; the ancient inscription; the five little rods."
Karl nodded sombrely, "I thought of that, but I wasn't sure."
"It was a horrible weapon, Karl," Antil hurried on as if the mere thought of it were not to be endured. "The ancients discovered it-but never used it. They hid it instead, and why they did not destroy it, I can't imagine. I wish they had destroyed it, I really do. But they didn't and I found it and I must use it-for the good of Venus."

His voice sank to a whisper, but with a manifest effort he nerved himself to the task of explanation, "The little harmless rods you saw then, Karl, were capable of producing a force field of some unknown nature (the ancients wisely refused to be explicit there) which has the power of disconnecting brain from mind."
"What?" Karl stared in openmouthed surprise. "What are you talking about?"
"Why, you must know that the brain is merely the seat of the mind, and not the mind itself. The nature of "mind" is a mystery, unknown even to our ancients; but whatever it is, it uses the
brain as its intermediary to the world of matter.*
"I see. And your weapon divorces mind from brain-renders mind help-less-a space-pilot without his controls."

Antil nodded solemnly. "Have you ever seen a decerebrated animal?" he asked suddenly.
"Why, yes, a dog-in my bio course back in college."
"Come, then, I will show you a decerebrated human."

Karl followed the Venusian to an elevator. As he shot downward to the lowest level-the prison level-his mind was in a turmoil. Torn between horror and fury, he had alternate impulses of unreasoning desire to escape and almost insuperable yearnings to slay the Venusian at his side. In a daze, he left the cubicle and followed Antil down a gloomy corridor, winding its way between rows of tiny, barred cells.
"There," Antil's voice roused Karl as would a sudden stream of cold water. He followed the pointing webbed hand and stared in fascinated revulsion at the human figure revealed.

IT was human, undoubtedly, in form -but inhuman, nevertheless. It (Karl could not imagine it as "he") sat dumbly on the floor, large staring eyes never leaving the blank wall before him. Eyes that were empty of soul, loose lips from which saliva drooled, fingers that moved aimlessly. Nauseated, Karl turned his head hastily.
"He is not exactly decerebrated," Antil's voice was low. "Organically, his brain is perfect and unharmed. It

[^12]is merely-disconnected."
"How does it live, Antil? Why doesn't it die?"
"Because the autonomic system is untouched. Stand him up and he will remain balanced. Push him and he will regain his balance. His heart beats. He breathes. If you put food in his mouth, he will swallow, though he would die of starvation before performing the voluntary act of eating food that has been placed before him. It is lifeof a sort; but it were better dead, for the disconnection is permanent."
"It is horrible-horrible."
"It is worse than you think. I feel convinced that somewhere within that shell of humanity, the mind, unharmed, still exists. Imprisoned helplessly in a body it cannot control, what must be that mind's torture?"

Karl stifsened suddenly, "You shan't overcome Earth by sheer unspeakable brutality. It is an unbelievably cruel weapon but no more deadly than any of a dozen of ours. You shall pay for this."
"Please, Karl, you have no conception of one-millionth of the deadliness of the 'Disconnection Field.' The Field is independent of space, and perhaps of time, too, so that its range can be extended almost indefinitely. Do you know that it required merely one discharge of the weapon to render every warm-blooded creature in Aphrodopolis helpless?" Antil's voice rose tensely. "Do you know that I am able to bathe ALL EARTH in the Field-to render all your teeming billions the duplicate of that dead-alive hulk in there AT ONE STROKE."

Karl did not recognize his own voice as he rasped, "Fiend! Are you the only one who knows the secret of this damnable Field?"

Antil burst into a hollow laugh, "Yes, Karl, the blame rests on me, alone. Yet
killing me will not help. If I die, there are others who know where to find the inscription, others who have not my sympathy for Earth. I am perfectly safe from you, Karl, for my death would be the end of your world."

The Earthman was broken-utterly. Not a fragment of doubt as to the Venusian's power was left within him. "I yield," he muttered, "I yield. What shall I tell my people?"
"Tell them of my terms, and of what I could do if I wished."

Karl shrank from the Venusian as if his very touch was death, "I will tell them that."
"Tell them also, that Venus is not vindictive. We do not wish to use our weapon, for it is too dreadful to use. If they will give us our independence on our own terms, and allow us certain wise precautions against future re-enslavement, we will hurl each of our five guns and the explanatory inscription explaining it, into the sun."

The Terrestrial's voice did not change from its toneless whisper, "I will tell them that."

## $A^{1}$ DMIRAL VON BLUMDORFF was as Prussian as his name, and

 his military code was the simple one of brute force. So it was quite natural that his reactions to Karl's report were explosive in their sarcastic derision."You forsaken fool," he raved at the young man. "This is what come of talk, of words, of tomfoolery. You dare come back to me with this oldwives' tale of mysterious weapons, of untold force. Without any proof at all, you accept all that this damned Greenie tells you at absolute face value, and surrender abjectly. Couldn't you threaten, couldn't you bluff, couldn't you lie?"
"He didn't threaten, bluff, or lie," Karl answered warmly. "What he said
was the gospel truth. If you had seen the decerebrated man-"
"Bah! That is the most inexcusable part of the whole cursed business. To exhibit a lunatic to you, some perfectly normal mental defective, and to say, 'This is our weapon!' and for you to accept that without question! Did they do anything but talk? Did they demonstrate the weapon? Did they even show it to you?"
"Naturally not The weapon is deadly. They're not going to kill a Venusian to satisfy me. As for showing me the weapon,-well, would you show your ace-in-the-hole to the enemy? Now you answer me a few questions. Why is Antil so cocksure of himself? How did he conquer all Venus so easily?"
"I can't explain it, I admit, but does that prove that theirs is the correct explanation? Anyhow, I'm sick of this talk. We're attacking now, and to hell with theories. I'll face them with Tonite projectiles and you can watch their bluff backfire in their ugly faces."
"But, Admiral, you must communicate my report to the President."
"I will-after I blow Aphrodopolis into kingdom come."
He turned on the central broadcasting unit even as he spoke, "Attention, all ships! Battle formation! We dive at Aphrodopolis with all Tonites blasting in fifteen minutes." Then he turned to the orderly, "Have Captain Larsen inform Aphrodopolis that they have fifteen minutes to hoist the white flag."

The minutes that ticked by after that were tense and nerve-wracking for Karl Frantor. He sat in bent silence, head buried in his hands and the faint click of the chronometer at the end of every minute sounded like a thunder-clap in his ears. He counted those clicks in a mumbling whisper,-8,-9,-10. God! Only five minutes to certain death! Or
was it certain death? Was von Blumdorff right? Were the Venusians putting over a daring bluff?

$\mathrm{A}^{\mathrm{N}}$N orderly catapulted into the room and saluted. "The Greenies have just answered, sir."
"Well," von Blumdorff leaned forward eagerly.
"They say, 'Urgently request fleet not to attack. If done, we shall not be responsible for the consequences.'"
"Is that all?" came the outraged shout.
"Yes, sir."
The Admiral burst into a sulphurous stream of profanity, "Why, the infernal gall of them," he shouted, "They dare bluff to the very end."

And as he finished, the fifteenth minute clicked off, and the mighty armada burst into motion. In streaking, orderly flight they shot down toward the cloudy shroud of the second planet. Von Blumdorff grinned in a grisly appreciation of the awesome view spread over the televisor-until the mathematically precise battle formation suddenly broke.

The Admiral stared and rubbed his eyes. The entire further half of the fleet had suddenly gone crazy. First, the ships wavered, then they veered and shot off at mad angles.

Then calls came in from the sane half of the fleet-reports that the left wing had ceased to respond to radio.
The attack on Aphrodopolis was immediately disrupted as the order went out to catpure the ships that had run amok. Von Blumdorff stamped up and down and tore his hair. Karl Frantor cried out otdully, "It is their weapon," and lapsted back into his former silence.

From Aphrodopolis came no word at all.

For two solid hours the remnant of the Terrestrial fleet battled their own
ships. Following the aimless courses of the stricken vessels, they approached and grappled. Bound together then by rigid force, rocket blasts were applied until the insane flight of the others had been balanced and stopped. Fully twenty of the fleet were never caught; some continuing on some orbit about the sun, some shooting off into unknown space, a few crashing down to Venus.

The remaining ships of the left wing were boarded, and the sight that met the eyes of the unsuspecting boarding parties was a terrible one. Seventy-five staring, witless shells of humanity in each ship. Not a single human being left.

Some of those who first entered to investigate screamed in horror and ran back as if pursued by all the imps in Hell. Others merely retched and turned away their eyes. One officer took in the situation at a glance, calmly drew his Atomo-pistol and rayed every decerebrate in sight.

Admiral von Blumdorff was a stricken man; a pitiful, limp wreck of his former proud and blustering self, when he heard the worst. One of the decerebrates was brought to him, and he reeled back.

Karl Frantor gazed at him with redrimmed eyes. "Well, Admiral, are you satisfied?"

But the Admiral made no answer.

He drew his gun, and before anyone could stop him, shot himself through the head.

$\mathrm{O}^{2}$
NCE again Karl Frantor stood before a meeting of the President and his Cabinet; before a dispirited, frightened group of men. His report was definite and left no doubt as to the course that must now be followed.

President Debuc stared at the decerebrate brought in as an exhibit. "We are finished," he said. "We must surrender unconditionally, throw oufselves upon their mercy. But someday-" his eyes kindled in retribution.
"No, Mr. President!" Karl's voice rang out, "there shall be no someday. We must give the Venusians their simple due-liberty and independence. Bygones must be bygones-our dead have but paid for the half-century of Venusian slavery. After this, there. must be a new order in the Solar Sys-tem-the birth of a new day."

The President lowered his head thought and then raised it again. "You are right," he answergd with decision, "there shall be no thought of revenge."

Two months later the peace treaty was signed and Venus became what it has remained ever since-an independent and sovereign power. And with the signing of the treaty, a whirling speck shot out toward the sun. It was-the weapon too dreadful to use.

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## APRILISSUE




## (Continusd from page 4)

lieved to exist in the unknown interior. An old account of Portuguese explorers several centuries aga tells of such a race, dwelling in an enormous riapded city, and Fawcett went specifically to find them*.

THERE have been many conjectures as to the identity of the famous "star" seen by the wise men as they journeyed to Bethlehem at the birth of Chridte - Kepler believed that the star was a conjunction of Jupiter and Satum in the constellation Pisces. The two planets at that time were in so close conjuriction as to appear as a single star, and astronomicil records show this conjunction to have oecdrred about 7 B. C. and might possiby coincide with the birth of Christ.

Another theory takes the recurrent star in Cassiopila, reported to appear about every 350 yeers. Its last appearance was in 1572.
© One of the most common theories is that it was the planet Yenus, wbich varies in brefihtaress, Whet, which is the brightest object, beypnd the whopn and the sfin, in the astronomical whatens. 3. Thiteriave been many more theories $\frac{4}{4}$ dvanced, *: aly off fhem lacking any definite proof, such as a coinet, a nova, or exploding star, a gian meteorite, or even an unusuà display of autrora berealis.

RESEARCF into the manuscripts the Vatican . Fibrary is now going on in an attempt to discovel a key to the ancient Mayan language 'in the reconds of priests who visited America at tbe time of the conquest. We know fons records of the Spanish Conquistadores that vast collec tions of literature, recorded on papyrus were gathered by the soldjers and burned. This is ope of the most regretable acts of these-vicieus, vandals, in the figbt of science, since the Mayans had evolved a omplex divilization and had developed astronom ${ }^{f}$ and mathemátics to 2 stage nof surpassed by, the ancient Egyptians. Also, it buried the origin of the Mayaps in mystery. Whether the secret will be uncovered lies solely witb these tedious investigations. Certainly, a key to the Maywn hieroglyphies would mean much, since there is an abundance of these inscriptions on the ruins of the Mayan temples and cities, constantly being uncovered in the jungles to which they have reverted.

$\mathrm{H}^{4}$AS Earth begfe visited by men from Mars? Certainly that's i question that all science fiction readers like to ask themselves. And it's ia cuestion autwors frequently ask themselves when
casting about for a plot for a new story. We've had many stories based on Martians coming to Earth, but in this issue you will find one with an entirely new angle. Your editors thought it the most thought-provoking story in a long time. We don't claim that David V. Reed, the newest of our new authors, has discovered anything sensational, but on the other hand, we don't express an opinion the other way. We leave the answer to the question "Where is Roger Davis?" entirely up to you.

*     *         * 

0NE of the most amazing stories of the sea is no longer an amazing story. And the most amazing fact is that it hasn't even been a mystery since 1913. We refer to the famous riddle of the sea, the Maris Celeste, which wats discovered under full sail, but without a soul aboard. A half finished meal was on the table, an uncorked bottle of medicine, hot taken, as indicated by the clean spoon beside it, an entry in the log, unfinished, and everything in absolutely shipshape order.

We've had sll sorts of conjectures, by science fiction writers, about monsters from the sea, alien dimensions, visitors from Mars, disintegration, etc., aboard the Marie Céleste. But the real truth is staggering in its simplicity.

Briefly, the story is this: A man, just released from prison, venturing into the shipyard where the Marie Celeste lay at anchor, witnessed the slieoting by an unknown person of an intended rokhery victlm. Sighted by an officer, he fled, knoteing he would once more serve time for a crive he did not commit, merely tbrough the whent of circumstantial evidence. He boarded the Mato Celeste and convinced the captain he wanted \&both on the ship.
At sea, during a calm period, the captain was celydenged by the fugitive to a race around the wh. Each was proud of his swimpting ability. 4. the contest was made an eventsind a raft conyutled as a start' and finish pfint. Most of tbe crew eongregated on the raft observe, while the rest of the crew lined thefail. The race was a heated one, and with Not half tbe course covered, interest was keen. No one noticed the approsching squall,-and as it struck, the sbip heeled viglently, throwing the sailors into the water. The shel then sped away, sailors failing to gain a hold o 0 its slippery sides.

All, drowned except the fugitive, who reached. shore; and continued to hide. At his death, his last request was the delivery to Lloyds of London, of a box containing papers, revealing the whole mystery.

Perhaps the most amazing part of this incident is the great publicity tbe mystery has received; even in recent years, without a murmur from those who knew the trutb, since 1913.

AND the inds up the Observatory clock for anoth - We'll be back again in the June issue with more editorial ramblings. Until then we welcome your comments.


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JOHN RUSSELL FEARN SECRET OF THE BURIED CITY

THE idea of a buried city, or at least a hide out with all the conveniences of a city, is by no means new of course. But it seemed to me as I sat down to plot the yarn that all the possibilities of a buried city had by no means been explored. Usually, so far as I could remember, the city had to be found by intrepid explorers and a heroine. Why not take a change and have the heroine come from the city? In other words, if Mahomet won't go to the mountain . . .
So came Phyllis Bradman-calm and resourceful for more reasons than are at first apparent in the story. Naturally I cannot give here the reasons for her abilities, otherwise, if you should read this first, most of the trick would be spoiled.

I do not believe it is at all impossible for a young farmer like Rod Marlow to come across a waste of metal on his farming land. I have heard of such things happening in England, notably in the South, though I do not suppose any nice girl will emerge and ask me to travel around with her into a scientific wilderness. No such luck!

From the point of the buried city idea the theme just naturally flowed into itself. Little offshoots kept leaping to my mind-memories of past civilization, of long gone wonder workers, of possible reasons for the brutality of early mankind. Atavism and solar radiations came into the picture and were encompassed in their proper perspective.

Another thing. It has always seemed to me that our usual run of heroes manage to get high offcials to believe too readily in their fantastic digcoveries. I thought it might lend a more convincing touch if the big shot saw, not success, but utter failure. Which of course he did.

Above all things I have tried to infuse into this story that element of humanity which I attempted in my more recent yarns, "Summons from Mars" and "The Black Empress." I have felt for a long time that the day of the unwieldy science novel has gone, unless it was done by such a master as Edward E. Smith. In the past I have been guilty of several massive efforts, which though they may have contained the germ of some new idea were swamped entirely of all hopes of characterization.

In "Secret of the Buried City" then I hope I maintain something of the humanity I am struggling for. That is for you, the readers, to judge. -John Russell Fearn, Lancashire, England.

## ISAAC ASIMOV

Author of THE WEAPON TOO DREADFUL TO USE
I $T$ all started last Christmas when I was talking to a friend of mine. Of course, the subject of
conversation (as is usual when I am one of the conversers) switched in time to science-fiction, and I began to declaim on my objections to the eternal raids, lnvasions, and wars that most seem to think inseparable from interplanetary travel.

Being optimistic as to the future of Mankind, I insisted that once interplanetary travel was a fact, Man would enter a new era of scientific advance -particularly if there were intelligent life on other planets.
"Why," said I, "should an alien race be malign and threatening. If they are scientifically further advanced than we are, they are probably more civilized as well, and there would be no war. If, on the other hand, we were the further advanced, then all we need is a little friendly cooperation."
Here my friend gave me the well-known horse laugh and asked me to repeat my last statement.
I did and he said to me, "Do you really think that If there exists on Venus, for instance, a race of intelligent beings less advanced than we humans, that we would act as benevolent big brothers to them? Judging from the treatment accorded to the various minority races on Earth right now, where all mankind is only one biologleal species, the life of these hypothetical Venusians-aliens that they are-would be one undiluted Hell. Write a story about it."
Of course he was absolutely correct. "You're right," said I, and thereupon sat down to write the story he had suggested.
Another factor that contributed to the yarn was a discussion 1 got into with my Philosophy instructor upon what exactly the Mind was. That argument ended in an impasse, because my opinion was that it was a purely mechanical thing of almost infinite complexity, while his opinion was so abstruse as to go over my head. However, It set me to thinking, and so lt served its purpose.

Still, I hope I was right the first time. It would be much nicer, if we all did get along together, if we all did come to realize that there is room enough on this Earth (and later on, in this Solar System) for everybody.

Maybe, some day, there will come a day when that will be realized-Isoac Asimov, Brooklyn, N. $\boldsymbol{Y}$.

## FREDERIC ARNOLD KUMMER, Jr., Author of FOREIGN LEGION OF MARS

IDON'T know how the rest of the science-fiction gang feel about it, but I'd like some day to go the Meet the Author column one better . . . I'd like to meet the other authors in person. From these pages I've learned enough about them to realize that they're chaps like myself, experi-
encing the same problems, the same ups and downs that are so much a part of the writing game. But even so, there's a sort of shyness in telling about one's self in print. Somehow I'd like to join my fellow workers over a scuttle of suds, learn their methods, how they work, get their opinions on the latest trends in our field. After all, we're not rivals, as some people think, but merely fellow-employees of the reading public. We've over a hundred million bosses and our success or failure is strictly up to us, based on the quality of the work we turn out.

Long before I tried science-fiction myself the others of the Amazing crowd, Polton Cross, Thornton Ayre, Eando Binder, Thorp McClusky, Ed Earl Repp, and all the rest were my standbys when I wanted to read a good yarn. It makes me rather proud to be appearing in the same issues as these headliners of science-fiction, and I only hope that some day I'll be able to equal their records for continued, top-notch work. And a sincere vote of thanks to all of you, fellows, for teaching me, by your grand stories, to write sciencefiction. Here's hoping we'll all be together in Amazing Stories for many another issue and many another year. And I'm still hoping for that gathering of the clans, some day, when we'll all be able to get together, editors, authors, and fans, to have one grand pow-wow. It'd be a great day!Frederic Arnold Kummer, Jr., Baltimore, Md.

## ED EARL REPP THE CURSE OF MONTEZUMA

YUCATAN has always intrigued me and with the writing of "The Curse of Montezuma" I definitely decided to go there before I'm many years older and explore, if permission can be obtained, some of the ancient Mayan ruins to be found in its tangled jungles.

Archeology has always been a special hobby of mine and during my various wanderings over the western plains and mountains, I've gathered several hundred excellent specimens of primitive war implements and artifacts, along with a number of stone mortars and pestles, one of which weighs over a hundred pounds, recovered from a depth of seven feet.

A couple of years ago I had the good fortune of acting as field secretary for a Death Valley scientific exploration party and during that time we uncovered what we believed to be the only ancient burial mounds in Southern California, over seventy-five of them, rising above the desert floor in a great crescent formation. In excavating one of these mounds, indications in the form of sun-dried bricks were uncovered furnishing a clew to what may he an ancient lost city. Human skeletal remains found with these bricks were petrified and according to our metallurgist, the silica content of the soil is such that at least 10,000 years would be required for bones to become petrified within it.

Along with these discoveries, we removed the
skeletal remains of an ancient aborigine that might well be classed as a missing link, being almost eight feet tall, with sloping brows and heavy frontal arches, to say nothing of a number of extra buttons at the base of the spine indicating the old fellow wore something of a tail appendage. Scientists have argued, however, that the remains were those of an Indian-Negro woman, but it is hardly likely because in the same levels were found the remains of Miocene camel and others of the pre-glacial period. Anyway, I'd like to hear from readers who have been to Yucatan and have seen those ancient Mayan ruins.-Ed Earl Repp, Van Nuys, California.

## BRADNER BUCKNER <br> Author of THE CITY OF OBLIVION

IT has always seemed to me that the field of interplanetary stories offers one of the most fertile fields for unusual ideas of any type of fiction. Not only have we a world to write about, but many worlds-and worlds that are very different from the one we live on. Thus, when I first conceived the idea of the city of Athasia, it didn't seem such a good idea, because I had no location for it. I had no place on earth where it could exist without clashing somehow with the things we know. But when I placed it on another world. .. 1
Some men, wishing to forget, go out and drown their senses in liquor, only to find the memory of the deed, tragedy, or circumstances they have tried to erase, come back stronger than before, to goad them on to everlasting turmoil of mind. Nowhere can they find the peace they crave. Other men resort to drugs-drugs that destroy the mind eventually, and thus the memory . . . but also the body. Killing, these means of forgetting. But whatever the reason, or the method, there are many human being who try to ferget.
But what about a man, preyed upon by the memory of a great injustice, and a great wrong, though not of his doing, emhittered and wishing to free his mind, who will not commit the added wrong of destroying himself? How and where to forget, and still remain alive, healthy, content?
A harmless drug? Perhaps. What kind? A gas. Where? Another planet, possibly strangely constituted, chemically. Perhaps noted for the property of forgetfulness which its atmosphere gives? Ah-why not a city of forgetfulness?

And there you have it, "The City of Oblivion" is the result. I have worked as much of plot as idea into this story, and I hope I have achieved something which is different, and at the same time, is still science fiction.-Bradner Buckner, California.

## MARK REINSBERG Co-Author of WAR WITH JUPITER

YTES, I am a science fiction fan, and since the day three years ago, when I first was introduced to it on a Chicago-bound train, folks have noticed several subtle changes in me. I hecame more or
less one track, dropping everything but science fiction and co-related subjects. Where, before, friends had no doubt I would turn out a chemical engineer they were now disconcerted by the fact that "down-to-Earth" Mark existed at least several generations in the future-ate, drank, and slept science fiction. After a time it became sort of an obsession with me, and my family regarded me with passive disgust. Passive because they knew they'd have to throw me out also if my collection was molested.

August 6, 1923, saw my arrival into the chaos of worldly affairs which makes me the delicate age of fifteen. Chicago, Illinois, was the lucky (?) city.

I am a veteran of two rejection slips, which did much to cool my enthusiasm toward $s$ - f as a career, thus, the majorlty of the credit should go to my friend W. Lawrence Hamling, who possessed what I didn't have-nine rejection slips and a fine power of description.

I was in a particularly unproductive literary rut when through a school activity I met Hamling. He being editor-in-chief of the "Lane Tech Prep" I was naturally introduced to him when I applied for staff membership. Imagine our amazement when we discovered that we were not only fellow fans but also both aspiring authors. We did the logical thing-got together on an idea-and col-laborated.-Mark Reinsberg, Chicago, Ill.

## W. LAWRENCE HAMLING Co-Author of WAR WITH JUPITER

IWAS born in this great city of Chicago on June 14, 1921, which makes me 17. (I think that Mark and I can safely say that we are the youngest authors in science fiction.) At the present moment I am pretty steeped in school studies, along with the terrific problem of putting out a magazine. Yes, you guessed it, I , in my own quaint way, am the Editor of a magazine. (Let
me spread myself a little gravy on the side.)
The "Lane Tech Prep" is the largest high school magazine in the world with a reading circulation of over 10,000 . Here, I received my first enthusiasm in writing, and here, it was that I first met Mark who aspired to join my staff.
Perhaps you would be interested to know just exactly how "War With Jupiter" came into being. Here is the story.
From the first moment we met, Mark and I found a common bond. He had the peculiar faculty of being able to pull plots out of the air, and I seemed to possess the ability to put the plots into words, thus the collaboration, Mark doing the thinking about the plot, and I taking his thoughts and putting them into words, comprised the finished product.
My career in science fiction dates back to a period five years ago when I first became interested in the field after reading "Space Hounds of I.P.C." I might say that I have the greatest admiration for Dr. Smith who is my ideal as a science fiction writer.

My future ambition, if any one is interested, is to be an author of sorts and a lawyer. (In order to do this I am going to further my studies at Northwestern after I graduate from Lane.)

My method of writing is nothing eccentric. I do however prefer a nice quiet room devoid of noise. This only, and my typewriter, and I am peacefully able to compose. (Reinsberg is sometimes an unbearable nuisance. He has the habit, when he is around, of leaning over my shoulder and dictating to my laborious fingers. Typewriter mechanics are enough without outside interference, and heavens knows that sometimes I feel like tearing the paper apart when he breaks in upon my reverie.) Outside of these small details, I find that writing is not really a relaxing pastime, in fact, it is usually darn hard work.-W. Lawrence Hamling, Chicago, Ill.

# A GLIMPSE AT THE FUTURE! 

Real treats are in store for readers of AMAZING STORIES in coming issues. We have secured some of the finest science fiction we've seen in many a day. Just a few of the authors who will present these choice stories are:

Robert Moore Williams-Ralph Milne Farley-Arthur R. Tofte-Ed Earl ReppFrederic Arnold Kummer, Jr.-Harl Vincent-John Beynon-Thornton Ayre—Polton Cross-F. Orlin Tremaine-Nelson S. Bond-Edwin K. Sloat-Abner J. Gelula.
Q. How many planets smaller than the nine major planets. are there in the solar system-Allan Rietzke, 1929 W. Greenfield, Milwaukee, Wisconsin.
A. There are more than eight hundred smaller planets, or planetoids, circling the sun.
Q. How many lenses has a bee in its eyes?John Holcomb, Wichita Falls, Kansas.
A. The worker bee has between 3,000 and 4,000 lenses in its eyes, and the drone has between 7,000 and 8,000 . A queen bee has about 5,000 .
Q. Were there any other giants in history other than the Biblical character, Goliath?-David Mangrum, Springfield, Mass.
A. Although we have no detailed record of such cases, we find record of fairly authentic nature of several giants. In the time of Augustus there were to be seen in the Horti Sallustiani at Rome the body of a giant, Posio by name, and a giantess, Secundilla, each 10 feet 2 inches in height. J. Middleton, otherwise known as the Child of Hale, born in 1578, grew to a height of 9 feet 3 inches.
Q. Can a fish really remain alive after being frosen in a cake of ice, if the ice is melted nat-urally?-B. L. N., Houston, Texas.
A. It is perfectly possible for a fish to remain alive after being frozen in ice. There is an instance where goldfish remained alive after being frozen in a pond all winter. In Siberia there are rivers containing fish which are buried in the mud and which are frozen all winter, but are alive in the spring. Goldfish have been dipped in liquid air, frozen to brittle hardness so that they break when tapped with a hammer or dropped on the floor. Yet fish so frozen have been placed in ordinary water, and in a few moments are swimming about as vigorously as though nothing had happened.
Q. Who built the Mount Wilson Observatory? - Esther Small, Chicago, Illinois.
A. The Mount Wilson Solar Observatory was founded in 1904 by Dr. George E. Hale. It was built and is maintained by the Carnegie Institute of Washington, of which it is the astro-physical department.
Q. Why isn't the heat of the sun dissipated in space?-Donald Coyle, Milwoukee, Wisconsin.
A. The heat of the sun produces waves in the
ether which do not however produce heat until they fall on the earth or some other body. There is no reason why these wave motions should be dissipated.
Q. Could a comet destroy the earth?-Asa Johnson, Sioux Falls, S. Dak.
A. For the answer to this question see our back cover this month, and also the article based on it, appearing on page 142 .

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Q. Is there any comet scheduled to appear in 1975?-John Adelman, St. Louis, Mo.
A. No. Haley's comet is scheduled to reappear in 1985-6, but there is no other on record for the date you mention. However, a comet uncharted as yet, may appear at any time.
Q. What causes the hum of the humming bird? -L. K., Boise, Idaho.
A. It is the humming bird's wings which cause the humming sound. The bird has very powerful muscles which drive the wings in rapid vibrations. These vibrations cause the humming sound. Most of the hummers have no song, their only notes being querulous squeaks of wrath or fear. A few of the tropical forms, nevertheless, are said to be slightly musical. The humming bird is the smallest of birds, and when stripped of its feathers is not larger than 2 bumblebee.

*     *         * 

Q. When was H. G. Wells born?-Albert Kastner, Toledo, Ohio.
A. The famous author was born on September 21, 1866 at Bromley, Kent, England. He was educated at the same place in a private school and at Midhurst Grammar School, and Royal College of Science, where he won First Class Honors in Zoology. Mr. Wells' father was a shopkeeper and his mother, who had been a ladies' maid, became a housekeeper to eke out the family fortunes. His "War of the Worlds" is his most famous science fiction piece.
Q. Is it true that the kangaroo can leap 30 feet?-B. L., San Francisco, Calif.
A. No. The kangaroo in full flight makes leaps of from 10 to 12 feet. They are known to jump fences 7 feet high, but generally the distance of their leaps is greatly exaggerated. The giant kangaroo is the animal referred to here, and its smaller cousins are limited to jumps of 6 to 10 feet. The kangaroo stands only as tall as a man, even when fully erect.

A mazing Storres will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brick-bats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

## INFORMAL

Sirs:
I always read "The Observatory" by the Editor first each month. It's different from most editorial pages. Informal, varied, educational. Being editor is work, of course, but it must be fun tooespecially in connection with a science fiction magazine. It must be a thrill, after wading through reams of fair, bad, and indifferent manuscripts, to come across one that has that certain something you-we are all looking for.
"The Strange Flight of Richard Clayton", by Robert Block I would say falls into the last mentioned class. It is different, and its plot is well handled.
Fugua's cover passes the test. Colorful, action, well drawn. You promised also to try Krupa on the cover remember. Also Paul. And why not McCatify !
One thing about the present contents page. It's clean-cut. From a sales point of view it might be well to divide the contents into groups under the headings: Novelettes, Short Stories, and Serials. The present set up somehow gives the impression that only short stories are used and makes the magazine "appear" small. If you do make this change, please be honest about it and not call a short story a novelette and a novelette a novel as so many magazines do to fool the buyer into believing he is getting more than is actually contalned.
Mc Cauley did a fine job for the back cover this month. How about a future city, future methods of farming, future newspapers?

> Jack Darrow
> 3847 N. Francisco Ave. Chicago, Ill.

Your editor has a philosophy about work. If it isn't fun, you are in the wrong business. I agree entirely about editing being fun, and I get a great kick out of being "informal". Your editor is also a reader, and therefore one of you, and glad to be one of the "gang".
Many thanks for your comments and suggestions. We are going to act on several of them immediately.-Ed.

## COMPLETELY SUCCUMBED

[^13]The magazine is simply marvelous. No use going into detail; I wouldn't have enough words for it. The stories are masterpieces, simply beyond reproach. Incredible. The back cover is superb. To me they are prizes not to be sold or exchanged. I have read many fiction magazines, and at that nothing but the best, but the comparison to Amazing makes them dwindle almost to nothing. No magazine has held me more spellbound than has Amazing. I have completely succumbed to lt.

Romeo Fascione
3826 E. 144th Street Cleveland, Ohio

- Sometimes a reader writes a letter and challenges us to print it, because of harsh criticism. You might have challenged us to print this one, because of its shock to our modesty. Thanks for the enthusiastic praise, which we'll keep right on rating, if intention is any criterion of accomplish-ment.-Ed.


## LIKE A SORE THUMB

## Sirs:

Mr. Craddock's Amazing Experiment is one of the best stories to appear in Amazing since the pre-crash era. H. G. Wells was the model and Mr. Temple has worked out a time-worn theme in an ingenious, pleasing, and almost-literary manner. It isn't scientific, to be sure, but it's certainly a teasing tale; it makes one think, which is the goal of the ultimate and ideal scientifictional piece. Lost on the Sea Bottom comes in second, and Valley of Lost Sords stands out among the rest of the February contents.
There are now about as many pseudo-scientific mags on the market as there are fingers on both hands. Amazing sticks out among them like a sore thumb. Keep up the good work!

Seymour Kapetansky 1524 Taylor Detroit, Mich.

## WE'RE BECOMING INURED TO BLUSHING

 Sirs:I have been a reader of Amazing since the first issue of its "Re-Incarnation" (remember that horror?) and now I find that Amazing tops the S-F field.
The five best stories, in order of merit: Wanted: 7 Fearless Engineers; I, Robot; Locked City ; Mr. Craddock's Amazing Experience; Battle in the Dawn. I could make it six with Summons From Mars, but that plot is just a little time-worn.

Now I'd like to put my two cents in the "New Adam" controversy. You claim that it is a study of the mental reactions of a being in an alien world. Mr. Editor, if you refuse to print New Adam, why did you print I, Rohot? Both are mental studies. I, Rohot was a classic, and from what I read, well liked hy your readers. New Adam will get the same reception, I'm sure.

Weinhaum was a genius; he will go down in S-F's hall of fame along with Wells and Verne.
Now a few words in regard to the format of the Mag. The illustrators are fine, but as mentioned hy other readers, you need a few more for variety. If you will only change to smooth paper and larger style, the "Re-Incarnation" will be complete.

Norman Birnbaumm
1056 Sherman Avenue The Bronx, N. Y.

## BLIP.BLOP.BLUP

Sirs:
I propose a simple alphabet for the more commonly occurring phrases in science-fiction. I propose, for example, that a + mark (arhitrarily pronounced "hlip") he suhstituted for the words "of Mars"; that a second device, such as an = mark (pronounced "hlop") be substituted for the words "of space."
The number of ergs of energy saved hy typesetters alone in the science-fiction field would make a technocrat purr in high gear.

Offhand, I would add to the list the mark $\Delta$ (pronounced "hlup") for the phrase, "fourth dimension," and really get to the heart of this timesaving business.

Douhtless other fans will join me in launching this great work.

P. H. Steveson<br>Box 162, Station D<br>Cincinnati, Ohio

- We detect a slight (?) hint of sarcasm here in regard to our science fiction phraseology. To that list we might add a few varied signs (pronounced blep and hlap) for "alien" and "of Venus". But take heart, Mr. Stevenson, mayhe our authors (and the uninitiative editor who creates some of these "hlips" himself) will take a lesson from this and try to think a hit harder in the future.-Ed.


## SPACE SHIP COVERS

Sirs:
Although I have been a reader for only a year the amazing improvement since you took it over is easy to see. Your front covers have however not kept pace with the hack covers. I would like to see some covers with space ships, machinery, planets, cities, or robots, as in the Jan. issue. I don't care much for scenes of people, with the exception of the Oct. issue.

In Lost on Sca Bottom, I helieve the author overlooked Pascal's Principle which states that water transmits pressure equally in all directions. Therefore the water would be compressing the air with an upward pressure of 4 tons to the square

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inch. Would not this highly compressed air prove fatal? Especially when stepping from a chamber under atmospheric pressure.

Fred Hurter Quebec Lodge Red Rock, Ont., Canada

- We wonder how you liked the cover for the April issue? This cover had machinery, another world, planet, rohot, etc., all rolled into one, without spoiling the dramatic effect of a single interesting object. Evidently we anticipated your desires before you express them. You can expect to see more covers with such things, including space-ships.

Although Mr. Repp didn't quite clearly explain about the cavern under the sea, it would seem that you are right ahout the pressure on the air in the cave.-Ed.

## IS SPACE COLD?

Sirs:
Every author of science fiction has the idea that space is cold and any object adrift in space, such as a human being, would instantly freeze. I don't see how this could be true, since space is empty of all kind of matter, the object would have nothing to alkorb its heat. Hence the object would retain its heat. The only loss would be by radiation, and this process would be slow.

> Jeffrey Thomason, 9472 Lakepointe Ave., Detroit, Michigan.

Cold. we've always considered, is simply an absence of heat. Thus, it seems most logical to assume that space is cold. As to how fast an object would freeze, I'm afraid we can't definitely state, since we know nothing about it, experimentally, Thus, it would seem to give the author as much right to his opinion as we to ours. Who knows whether radiation isn't instantaneous in space, or whether there is none (or little) at all? Considering that an ordinary light bulb is almost empty space, with a filament at its center, how about the fact that the constantly produced heat doesn't instantly melt all such filaments, simply because it isn't radiated away. It would seem that radiation does exist, and at a quite rapid rate, in the near vacuum of a light bulb. So why not at an even more rapid rate in space?-Ed.

## ALPHONSE BERTILLON

Sirs:
Alphonse Bertillon did nol invent the system of finger-printing for identification in 1879.
1 quote from "The Story of Scotland Yard," hy George Dilnot, p. 281: "There is irony in the supposition that Bertillon was the inventor of the finger-print system. In fact, he did not at first believe in it. In the year that fingerprints were first adopted . . . in England, he wrote: 'Unfortunately it is quite undeniable, notwithstanding the ingenious researches conducted by M. Francis Galton in England, that these designs do not present in themselves elements of variability sufficiently trenchant
to serve as a basis in a collection of many hundreds of thousands of cases.'"
P. 280, ". . . a more novel and revolutionary proposal was put forward by Mr. Francis Galton . . . he urged and proved that . . . the chance of two fingerprints heing identical was less than one in 64,000 millions. There is controversy as to the man who first adopted fingerprints for purposes of identification. There can be none ahout the fact that it was Galton who persuaded Scotland Yard to give it a trial."

The ahove refers to the use of fingerprints as means of identification. However, the question says, "The system of fingerprinting used for identification." I further quote from the above authority; p. 282, "There was in India . . . an In-spector-General . . . Mr. Edward Henry. With many pains he devised a system of fingerprint classification based on a mathematical formula . . . in 1900 he published his well known and standard book, Classification and Uscs of Finger Prints." P. 279, ". . . Alphonse Bertillon . . . had devised a system of anthropometrical measurements which was far in advance of any mode of identification hitherto practiced . . . Three things were used as a sort of index-the height of the body, the length of the little finger, and the colour of the eyes."

Donald L. Storms, 17 Masonic Strect, New London, Conn.

## THIS READER HAS CUT HIS TEETH -ON US!

Sirs:
That you should refuse to print "New Adam" on grounds of unsuitahility in that it is essentially adult fare implies that you are either out of touch with the mentality of your readers, or that you are the victim of senile and mental decay. Don't be too shocked if I inform you that at least 90 per cent of your male reading puhlic wear long trousers, and do not need to use a hih during meals. And I hope I'm not disillusioning you hy telling you that most of your readers have cut their teeth.

If you think that we, the readers, want nothing but ray guns, ludicrous monsters, and even more ludicrous heroes of the Flash Gordon type, then you are not mistaken; you are forever damned! No doubt you mean well, hut the road to Hell is paved with good intentions.

The announcement that excessive sex and love interest will be omitted in the future is not cheering; for that means that the magazine will contain nothing but accurate science, which we can get at any reference library. Accurate science, indeed! Perhaps it would he as well if ye Editor realized that today's fact is tomorrow's fallacy, and that the hest fantasies in the world contained very little science.

The current issue of A. S. is merely typical. Van Lorne is unspeakahly amusing-he writes like a child of eight. Coblentz is, of course, good, and I can't understand how you allowed him to slip in.


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## WANTED

 ORIGINAL POEMS', SONGS for PUBLICATION and RADIO-and for submission to motion picture, record and transcription markets.
Westmore Music Corp., Dept. 28-F, Portland, Ora.

Another story which is too good for the magazine is "Mr. Craddock's Amazing Experience," by William F. Temple. This story is quite original, and very amusing; and it is written in a very pleasing style. It could have been longer with advantage. Temple seems to be a new author, but he writes far better than many of the established professionals. I should like to see more of him.
Let's have some good S-F during 1939.

> David McIlwain, 14 Cotswold St., Kensington, Liverpool, Eng.

The editors are glad to note that you name several stories in one issue which are worthy of their "long pants."

## PHOTONS AND CYCLOTRONS

Sirs:
A Mr. Tillman (Jr.) of Madison College, complained in the March issue of considering a photon at rest. While his derivation from the Relativity Mass equation is a bit shaky, $0 / 0$ being indeterminate and only capable of being handled by calculus, he still has a good point.

Planck spent 10 years trying to crawl out of the undeniable consequence of considering light as particles of a definite momentum, and with a definite mass. It has recently been shown by rigorous mathematics that this is a necessary as well as a sufficient solution, which definitely proves the case. Of course we can look at the matter practically, and say that if a photon is light, and it no longer moves with the velocity of light, then what is it ? Of course it would be nothing without motion, as it is merely an electro-magnetic wave train, compacted in some curious manner (perhaps like a vortex or "smoke ring") and as such its chief propertles are linear motion and vibration. The ultimate nature of light is of course still a moot question, but in my opinion it is more difficult to imagine a motionless electro-magnetic wave than an infinite mass.
Before I close, I might interject a plea to the authors to lay off these portable cyclotrons they are tossing to their characters. I worked on a "small" one last year, which weighed somewhere in the neighborhood of 5 tons, without the surrounding water chambers, and required a 10000 volt input at plenty of amperage.

> Robert J. Bibbero, 920 Baldwin Ave., Ann Arbor, Mick.

## A QUESTION

Sirs:
I would like very much to ask Mr. Hamilton how it is that his shining God turned everything invisible in a few hours but failed to have any effect upon the cavern in which it had rested for uncounted ages. I can understand the fact that the walls of the said cavern would be too far away to be rendered invisible by the radiations, but one would think that the floor under and around it at least would be transparent.

Your art work is very good and I have only one criticism to make. Fuqua's and Krupa's work resemble each other too much. I would suggest you get an artist more like Dold or Marchioni and give your readers a little more variety.

> Donald Ward,
> Armdale, Halifax,
> Nova Scotia (Canada).

- On page $45, \mathrm{Mr}$. Hamilton tells of the transparency of the walls and floor "to a great depth." Did you miss this?--Ed.


## RATINGS

Sirs:
Here's how I merit the March issue.

1. The Strange Flight of Richard Clayton.
2. Marooned Off Vesta.
3. The Raid from Mars.
4. Vengeance from the Void.
5. Trapped hy Telepathy.
6. The City That Walked.
7. Valley of Invisible Men.
"Strange Flight of Richard Clayton" was undouhtedly the hest. Though Richard Clayton lost all conception of time, Robert Bloch had the story timed perfectly as though he himself were Clayton. "The Raid from Mars" had good, colorful action and is in a deadlock with "Marooned Off Vesta" for second place. Next, and a bit unusual, I nominate "Vengeance from the Void." "Trapped by Telepathy" was fifth, hut holds a decisive lead over "The City That Walked," which was ended too ahruptly. Last, and by far the least, "Valley of Invisihle Men." What the deuce happened to Edmond Hamilton? The story was very well written hut would have found a hetter place in an adventure magazine and not a good science fiction magazine. But still give us more of Hamilton because he really can do much better.

> Harold G. Schaefer, 1320 Fulton Ave., New York, N. Y.

- Your ratings of the stories don't conform with the concensus oi opinion, as revealed after a checkup. Our readers have rated the March issue as follows: 1. The Strange Flight of Richard Clayton. 2. Valley of Invisihle Men. 3. Trapped by Telepathy. 4. The Raid from Mars. 5. Marooned Off Vesta. 6. The City That Walked. 7. Vengeance from the Void.-Ed.


## CONTENTS PAGE

Sirs:
First of all I count myself among those who think that the layout should be definitely changed. As it is now it is a good, workmanlike joh of lettering and nothing more. What it needs is a hit of pepping up in the form of a sort of design which will serve to express the spirit of the magazine. Casual readers upon picking up the magazine at a newsstand as a rule are attracted hy the cover which is undoubtedly attractive; they then generally take a glance at the Contents page to see


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what sort of a magazine Amazing Stories is. What an opportunity to arouse their interest lies here!

Your stories, as a rule, please me immensely and the various departments are all well conceived and very interesting. Please try to get more stories by the worthy Bob Bloch. Also yarns by Van Lorne. Kummer, Simak, Williamson and E. E. Smith especially.
Why doesn't that lofty genius Bloch pen a saga in satirical style once in a while? His stories are usually rather grim affairs and his letters and comments in the "Authors" department are quite the reverse, to say the least. It has reached the amazing state where his comments about his stories excel the stories themselves. I wish he'd cast aside his cold-sweat operas for a time and write a few burlesques and stuff.

> L. P. Wakefield, 2832 Marshall Way, Sacramento, Calif.

## ARTISTS-ROMANCE-POLITICS

Sirs:
Your artists, Fuqua and Krupa, are unquestionahly among the finest illustrators to be found in any pulp magazine-by all means keep them. Even Paul and Wesso are not superior to them. The covers especially seem to be better and better with each issue-those for Fehruary and March are superb. The only let-down was in the coverpainting for the December number. I guess it's pretty well established now that the painted covers are superior to the color-photos.

I see that in a recent issue somebody revived the old hone about romance-or-no-romance in science-fiction. This, in my opinion, is not a subject to wrangle over-it's up to every author to decide whether or not his story shall contain the love-element. Admittedly, in some stories the romantic angle appears to he dragged in by the hair; in such cases, apparently, the writers feel that unless there's a beautiful gal in the yarn, it isn't a story. However, the presence or absence of romance should be determined by two factors-the length of the story and the importance of loveinterest as plot-motivation. Long stories usually become rather dry without a trace of romance; in short stories romance often is superfluous. For instance, in "E6 Gets His Man" the Female was a pest who should have been heaved out into space at the start. Her presence made it no more imperative for E6 to get his man than did his plain duty as a minion of the law. Again in "Interplanetary Graveyard" the presence of the girl in no wise altered the gravity of the hero's problemescaping from the vicinity of the freakish planetoid. However, as I say, the romance-or-no-romance question must ultimately be left to the author to decide.
Many readers are obsessed with an idea that every story must be interpreted as a political or economic discourse, no matter how remote the writer's desire to preach or harangue. Whatever social picture the writer may draw, such readers
immediately construe it into an argument for or against their own pet theory. If it goes against their grain they promptly raise a stink ahout it, denouncing the author as a Nazi, a rabid Communist, or a Capitalistic tyrant, as the case may be. In all probahility the author is none of these, but a simple, honest-to-gosh American who doesn't give a solitary damn about isms and ocracies, and whose only policy is live-and-let-live.

Allow me to chide Ralph Milne Farley for saying that "Battle in the Dawn" is not, by any stretch of the imagination, science-fiction. Pardon me, Ralph, but "Battle in the Dawn" is founded on the science of anthropology, and save for a few entirely pardonable errors, is an excellent picture of human history some 30,000 years ago. Its subject is strictly scientific, and therefore the yarn is by no means out of place in Amazing. Wellman drew a picture that, with a few negligible exceptions, presented the truth ahout ancient humanity as accurately as science could deduce it.

Frank J. Brueckel, 1424 W. Highland Ave. Milwaukee, Wis.

*     *         * 


## ED EARL REPP REPLIES

Sirs:
Many thanks to James D. Tillman, Jr., for his comments in the March Amazing on "The Scientific Ghost." And thanks to Ye Ed for his remarks in defense of your humble scribe.

We always like to get the readers' candid opinions, even if, boiled down, they imply that we'd better take up a pick and shovel and go W.P.A. instead of writing stories.
However, I must disagree with Jim's criticism of "The Scientific Ghost" for obvious reasons. When he quotes Fitzgerald to the effect that a photon at velocity zero would cease to have a mass, I heartily differ. We know that various gases have been frozen down to about two-thirds of a degree above Ahsolute Zero, which is another way of saying their molecules were nearly at rest, yet they retained their mass in ahout the proportion they should for that temperature. It is difficult for me to believe, and in perfect agreement with Ye Ed's remarks on the question, that

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upon reaching that last infinitesimal point where motion ceases, they would suddenly cease to exist.

Certainly they would hecome relatively tiny, if, as the general belief holds, all atomic motion halts at this temperature. If the Rutheríord concept of the atom is correct, and in my estimation it is fairly close to it, we might expect the protons and electrons to fall together with the removal of centrifugal force. Thus an atom in perfect entropy would lose much of its size, hut why would its weight change to any perceptible degree?

The point 1 was endeavoring to reach in "The Scientific Ghost" was simply that the photons striking the freezing chamher were stopped dead as they struck the frozen air within it. Having no motion they could proceed no farther. Their mass hecame negligible, but once released by a warming process, motion began again and they proceeded in their course unchanged.

Anyway, Jimmie Tillman receives my heartiest thanks for going into the matter so determinedly, hut until someone makes a photon disappear hefore my eyes, I'll stick to my story.

> Ed Karl Repp,
> Van Nuys, California.

This argument seems to be one with many angles, but your editor wishes also to point out that any object in motion creates energy. Thus, light, with mass, being in motion, possesses energy (kinetic) and frankly, we can't quite see mass just becoming non-existent, especially a mass containing any energy potential at all, without some sort of pyrotechnics, or at least, a hlasted theory.-Ed.

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## HOT OR COLD OR-?

Sirs:
Under the heading of Science Discussions, I feel inclined to promote a new theory. I realize, of course, in doing so, I am leading with my chin. Nevertheless, after research from all three of the dimensions, I find space is neither ahsolute zero nor is it any warmer. In short, gentlemen, I find it to have no temperature whatsoever.

For example, should an article be thrown into the void at any given temperature, it would remain so indefinitely for this reason.

Without body or mass there is nothing, void is vacuum, space is void, nothing is vacuum. Vacuum, having no body or mass, is a perfect insulator against heat or cold. Therefore, there is no mass to draw the heat from your object.

Instead of cooling, it would if exposed to the direct rays of the Sun, have a tendency to heat, unless shielded.

I realize, of course, men far more brilliant than myself have been wrong on simpler questions, if I am among the unlearned, comments accepted with appreciation.

> Allen Hunter, 1127 Masonic Ave. San Francisco, Calif.

Here's more basis for a "feud" among the readers of Ajiazing Stories. How many more of you have anything to say about this hot and cold space stuff?-Ed.

## STORIES COUNT

Sirs:
The so-called "Fallen Aristocrat" has certainly picked up since the June issue of 1938. Recalling your words in the March issue of Amazing Stories I must heartily agree with you. Both the March and April covers were certainly masterpieces of Science-Fiction.

The April number looks good. Your back cover must certainly make your rivals green with jealousy. As to the smooth pages talk I've been hearing lately, it makes no difference to me if you get them or not, I won't kick; smooth pages do not always give one a good magazine, as some fans think. It's the stories that count.

> Blaine R. Dunmire, 414 Washington Ave., Charleroi, Penna.

Your point is one we've had in mind for a long time, and we've concentrated more on stories and other content improvements than on mechanical things which don't really add anything to science fiction.-Ed.

## COMMENT ON APRIL ISSUE

Sirs:
Cover: Superb! Absolutely the best work Fuqua has done for you-and I don't think I'd be too enthusiastic even if I said it was the most beautiful cover to appear on any Amazing since 1936 ! Back Cover: Very good, indeed. Next to letters, this feature is tops.

Congrats again for purchasing at long last, THE

NEW ADAM! Now all we readers want is to read it! If this could somehow he arranged, I'm sure it would he appreciated ! But seriously, and suggestively, I'd rather read it in hook form than in magazine form. As I've said before, I'd gladly spend almost any amount of money to get THE NEW ADAM.

May it appear soon!
Jim Avery,
55 Middle Strcet, Skowbegan, Maine.

## OH ! OH !

Sirs:
Regret to inform you, friend editor, that the April issue of Amazing was something of a letdown, particularly so after the momentary elation inspired in this fan by your superexcellent cover and fine artwork.

And the question of prime import, to both of us, I suppose, is why? Why should an issue entirely fail to click? Well, we may as well begin with the first tale and so on to the end. "World Without Women" which opens our latest, seemed to run along fairly smoothly, and when I came to the section wherein the author sets a magnificent precedent by seeking cooperation with the other-worlders rather than heroic destruction, I thought we really had something. But then, the letdown when the author reveals that the Lunarians supposedly intended to conquer the Earth after all, and our hero saved the world hy suhtlety rather than rayguns: It's still the same old baloney no matter how intricately sliced.

Then there's the "Invisible Invasion" which would have gone very nicely in Horror Stories, Terror Tales, or thereabouts, but in the 13th anniversary number of the elder stfmag., it was particularly obnoxious. Must the despair and terror of the world of realities at the Fascist threat to civilization be projected into every issue of Amazing Stories? So far, there hasn't been a single issue under the new management that didn't infuse it in some way.

Now the "Deadly Paint of Harley Gale." The tale wasn't had, but one would suspect that Mr. Repp would come around to using a new style and manner of presentation eventually. Dammitt all, sir, this is the same old stuff that AS was printing ten years ago. Back in those days we thought it was pretty good, and it was. Repp has done some rather good stuff such as "The Stellar Missle" and its sequel, but, with the exception of "The Scientific Ghost" one might suspect that these current mss. had been dustgathering in the ghoulhaunted editorial vaults this last decade.
"The Martian Avenger" might have been good had I not read so many similar tales in the past few years. Atmosphere or ocean-stealing, carboncopies of leading characters: Ho hum and then stretch, yawn and to sleep. "Black Empress" was the same thing, hut rather better written.

As for "Revolution on Venus" epithets are weak. Suffice to say about it, and about each
variation upon it that you've published in the past six issues, and I suppose, will continue to publish for the next 66, comment can be admirably condensed into two words: it stinks.

Thus we deal with five of your alleged great stories. The other two were rather good, although "Madness on Luna" was only interesting as a prohlem: the story value was quite nil.
Sooo, this fan's choice for the $\$ 50$ award goes to Eando Binder for his "Flame From Nowhere." It wasn't awfully good; Weinhaum used the same besic solution of his problem in the "Adaptive Ultimate" and it ran along the same conventional lines, hut it was far better than the rest in the issue. On second thought, you should really distribute the $\$ 50$ among the first 50 readers who take the pains to read the magazine and write in.
However, there are a few points in interest in the issue. The cover and illustrations are improving with each number; the discussions column is nifty, being the only two-way traffic one in the field today. Pu. down one more vote for still further enlargements on discussions, hy the by. And "The Observatory" is interesting as usual. Least interesting features are "Meet the Authors" and "Science Quiz." Back cover is quite good.
One doesn't suppose that such cheerful disapproval will be considered as includahle in discussions, inasmuch as scientidiscussions or praise with unmitigated elan seems to be the prime note
there. One thing more: this reader favors serials, not more than three-installments in length, and stories, if possihle hy Dr. Keller, Ray Gallun, Jack Williamson, Stanton A. Coblentz, Arthur J. Burks, Robert Bloch, L. Ron Hubhard, Frank Beiknap Lon, Jr., L. Sprague De Camp, and so on far unto the dawn. Steven Gray,

Haig Ave., Stamford, Conn.

- This reader has unmitigated elan of his own, and he proceeds to hring up a lot of points on each of our last month's stories and features. He begins with adjectives of praise, and we thank him for it.

As for his "cheerful disapproval" we note that he actually liked four out of the seven stories to a varied degree, even though, as he says, he's read some of them many times. But there's one point we want to talk ahout. That is, for an author to change his style and his presentation.
First, let me ask, just what is it that gives an author "style"? Well, it's something he develops more or less unconsciously. He partly imitates the styles of authors whose work he likes, he partly creates new variations of his own. Gradually he grows to use certain hahitual phrases, tricks of presentation, and novel angles as a matter of course. He sells stories written that way and keeps on.
Then, at someone's suggestion, perhaps Mr. Gray's.

he decides to do something "new." What happens? He is doing something new to him, and it more than likely falls entirely flat.
Most authors have discovered that it doesn't pay to keep changing style, since it ruins whatever style they may have developed, and adds nothing to either popularity or sales.
True, some authors can adopt many styles, and do it well. Some, I say. There aren't many. So, if the editors of Amazing Stories want to keep on pleasing the readers, we won't advise our authors to experiment. Instead, we'll try to get more authors with new styles of their own. We're sure you'll agree with us there. What would Weinbaum have been had he switched styles every story? It was his marvelous ability along those lines that made his work super work. It had a distinct style of its own.
And just to prove we're right, we are presenting quite a few new authors in the future. Just keep your eyes peeled, Mr. Gray, and we promise you we'll more than please your taste for the un-usual.-Ed.

## EGO

Sirs:
Will Mr. King Keillor kindly and konscientiously kick his korpusposteriosus. Thank you! Now, will he kindly prepare for battle! Again, thank you.
No doubt, there are a few individuals who get a kick out of seeing their letters in print; but I find from experience that the only kick which most fantascribes get is the one from their friends, who invariably disagree with everybody and everything (a peculiarity of S-F fans).
All fan activities are a form of self-expression, and an outlet for creative abillties. For discussions, criticisms, and letter writing concerning S-F mags and their contents are but another facet of that self-expressive urge which seems the motivating power behind the Fan.
Letters would still be written by Fans to the various magazines even if reader's departments were to be abolished; so it transpires ego is not the "ulterior motive" behind our letter writing.
So much for that. 1 would like to close by commenting on the rest of the issue $\ldots$. which is of bigh standard. The stories are nothing to rave over, but they are certainly an improvement on last year's selection. "The Raid From Mars" was quite pleasant, though not Breuer's best; and Bloch's "Strange Flight of Richard Clayton" was the cat's pyjamas. The latter's comments on "Meet The Authors" was a scream! All the departments are $100 \% \ldots$ and I must admit that Amazino has made definite progress since the beginning of 1939 .

Finally, there's a strong arm deputation of Fans waiting to jump on you if you don't produce "The New Adam," so be warned!

> David Mcllvain,
> 14 Cotswold Street, Liverpool, 7 , England.

If we remember correctly, we promised you we'd give 1939 a nice send-off, and make AmazING $100 \%$ better, but we didn't think you'd agree we were succeeding so soon.

As for New Adam, we repeat, we've purchased it and you'll hear some very good news about it in a coming issue. Watch for our announcement concerning it. We promise it will be soon.-Ed.

## CORRESPONDENCE CORNER

Carl Swanson, Coleharbor, North Dakota, has many issues of all sclence fiction magazines in stock, which he will sell for very reasonable prices. D. M. Hawkins, Box 55, Caroleen, N. C., has back copies of science fiction magazlnes for sale. . . . Willam Voney, 11a Lawson Street, Paddington, Sydney, NSW, Australia, announces the revlval of the "Junior Australian Science Fiction Correspondence Club," and desires all old members and prospective new members to contact him. . . Abraham Oshinsky, 2855 W. 25th Street, Brooklyn, N. Y., is forming an astronomy club. Will all interested write him? . . . R. M. Turner, 263 St. Clair Street, Bridgevlle, Penna., wants correspondents from persons interested in science fiction, science in general, from any country.... Lesie Grant Smith, 29, Roydan Grove, Skellingthorpe Road, Lincoln, England, wants letters from anyone, anywhere. . . . John Cunningham, 2050 Gilbert Street, Beaumont, Texas, wants to correspond with foreign and local readers of Amazing Stories, in the age range of 15 to 17 . . . . Donald Ford, Box 151, Kingston, Ohio, wants to correspond with anyone around 17 years old, of either sex, interested in collecting magazines, house plans, designs, or similar hobbles. . . . Vivian Metherall has received so many letters she doesn't wish to enlarge her correspondent list any further, because she is unable to give them full justice. She apologizes to those whom she is unable to answer. In response to Leslie Croutch, she is sorry she neglected to mention she wanted correspondents from England and Australia especially, but if he still desires to write, she'll answer. Also, regarding readers who fail to answer, she asks: "What about Chet Fein and Thomas Goffery answering her last letter?" . . . B. Wise, 642 W. Evergreen Ave., Youngstown, Ohio, would like to correspond with readers of science fiction, and stamp collectors around the age of 16 . . . Ronald E. Conway, 38 Townsend Ave., Liverpool 11, Lancashire, England, wants correspondents in the U. S. . . Bill Stanbery, Clarion, Iowa, has a complete file of Science Fiction whlch he wishes to dispose of. . . . Norman Birnbaum, 1056 Sherman Ave., The Bronx, N. Y., wishes correspondents interested in all books, magazines, stamps, sports, and amateur journalism. . . John C. Hazelgrove, 13 Foundry Street, North Road, Brighton, Sussex, England, wants to hear from science fiction fans in Sussex. ... Frank J. Dudash, 7176 Wentworth Ave. S. W., Cleveland, Ohio, wants to procure the first Amazinc Stortes Quarterly. . . .


WE present tbe following science questions and problems for your entertainment, and at tbe same time as a pleasant means of testing your knowledge. How many can you answer offband, without referring to an authority? $70 \%$ correct is an excellent rating.

## SCRAMBLED SCIENCE TERMS

1. The element of which all life is based. BRONCA
2. An astronomical instrument. STEELPECO
3. One of tbe ray particles emitted from radium. MAGMA
4. A long-sougbt type of power. CATIOM
5. A malignant cell-growtb wbose real cause is unknown. NECCAR

## PROBLEMS

1. A man owns a plot of land 50 feet hy 125 feet. He requires an architect to build for him two separate stores, each to be 50 feet by 125 feet. They must be on the ground floor, no basement or second story. How will it be done?
2. Keeping in mind the following matbematical rules, solve the given problems:
A. Zero divided by anything equals zero.
B. Any number divided by itself gives one.
C. Anything divided by zero equals an infinite quantity.

$$
\begin{aligned}
& \text { a. } 0 \div 0= \\
& \text { b. } 1 \div 1= \\
& \text { c. } 1 \div 0= \\
& \text { d. } 0 \div 1=
\end{aligned}
$$

3. $A$ is an autbority on magnetism. He knows, and bas tested, the fact that a freely suspended magnet will turn its nortb pole to the north and its south pole to tbe soutb. He also knows the law of magnetics whicb states "unlike poles of a magnet attract each other". B, who knows nothing of magnetism, wants to go to tbe soutb magnetic pole. He requests information on the subject from A, regarding its location. A, who isn't a geographer, gets out his magnets, and after observation, directs $B$ to which polar region?

## SCIENCE TEST

1. A gibbon is a species of leopard, a snake, an anthropoid ape, a chimpanzee, a silly person.
2. The light of tbe moon affects the temperature of tbe earth by : 1 degree, $1 / 100 \mathrm{th}$ degree, no appreciable amount, five degrees, $1 / 2$ degree.
3. An annular eclipse is one that occurs: every year, when the moon is not yet full, when tbe moon is nearer than usual, when it is more distant
than usual.
4. A sun gog is: A peculiar type of sun spot, a brilliant mirage caused by reflection of the sunligbt from snow fields, a reflection from snow crystals floating in the atmosphere, the sun, seen througb polarized lenses.
5. A hair's-breadtb is: $1 / 48$ th of an inch, $1 / 1000$ of an inch, $1 / 500 t \mathrm{~b}$ of an inch, too small to measure, 0.0035 inches.
6. There are 7000 grains to a pound: avoirdupois, troy.
7. Tbe foot-pound is: an ancient instrument of torture used to pound the feet, the energy necessary to raise a space sbip one mile, the energy unit used to illustrate horsepower, the quantity of energy used to raise one pound vertically the distance of one foot.
8. A dyne is: a sound given off hy a heterodyne in radio, a unit of distance in astronomical measurement, a force which is sufficient to move one gram of matter at a speed of one centimeter a second for one second.
9. Aelurophobia is: fear of falling, fear of cats, fear of dreaming, fear of fire.
10. Tbe term microphyllous means: smallveined, beyond vision, too smail to weigh, small leaves, seen only under the microscope.

## STRIKE OUT THE WORD THAT DOES NOT CONFORM

1. Water, $\mathrm{H}_{5} \mathrm{O}$, Aqua, Aqua regia, dew.
2. Whale, kangaroo, cow, turtle, human.
3. Otter, beaver, seal, walrus, cat.
4. Diamond, ruhy, jasmine, amethyst, garnet.
5. Grease, gasoline, aspbault, pitch, oil.

## TRUE OR FALSE

1. If the surface of the eartb were entirely level, the water would cover it to a depth of more tban two miles. True.... False....
2. The earth is nearest the sun in tbe summer. True.... False....
3. Gasoline can be taken from natural gas. True.... False....
4. Amhergris is a fatty secretion formed in some sperm whales. True.... False....
5. There is no metal wbich will cause a gas to ignite. True.... False....
6. Bees are attracted most readily to blue flowers. True.... False....
7. Stridulation is the term given to the noise made by crickets. True.... False....
8. There are no black flowers. True.... False....
9. A mirage cannot he pbotographed. True.... False....
10. All bats are blind. True.... False....

# THE END OF THE WORLD It Can Happen-TOMORROW! 

MOST of us give no serious thought to tbe oft-used phrase "tbe end of the world." That is something of the distant, misty future, so far from the realities of today that it isn't even worth tbinking about. We've heard scientists speak of the possible end of tbe world, when the sun, cooling off, finally affords the earth insufficient light and heat to support life on its surface. We've listened to the staggering figures they quote, in numbering the years until that will become reality. A billion-no, ten billion years, they say, and we shrug. Wby worry about something that will not happen until perhaps even the country we live in has been forgotten, even in legend? What is it to us?

Indeed! But what if the world were not coming to an end in a billion years, were not to die just because the sun has slowly cooled down, but were to end now-tomorrow! Tomorrow you say ? You scoff. But it can happen. There are many ways in which it could happen; perfectly logical ways that life on earth might be wiped out.

On our back cover this month we have tried to illustrate several of these cosmic dangers that exist, and can sweep life out of existence almost before we are aware that death is near. We have selected the four reasons that are considered most possible, most scientifically reasonable to expect as a not too remote actuality. We have selected four ways in which our world can be destroyed, and in so doing, we have selected those ways which astronomy has already either observed, or predicted, from observations of results. Any one of these four things has happened to countless worlds, in countless galaxies, already, and are still happening. Even recent observation has shown several of them.

First, and possible most romantic of them all, is the possibility of a cosmic visitor to the solar system, a comet, approaching near enougb to the earth to either strike it, or poison its atmosphere through intermingling of the gaseous envelope of each. Spectroscopic observations of comets have revealed the fact that many have atmospheres, and that some are deadly poisonous gases. It wouk not require such a great amount of any one of a number of gases to render our atmosphere unbreathable.

We can picture this comet, perhaps one possessing no light of its own, becoming visible suddenly, as it sweeps in toward the sun. Astronomers hastily broadcast the news, but before the news is abroad, all but the blind are aware of approaching doom. Lit by solar radiations, the comet glows with a dreadful ligbt as it plunges down upon the earth.

And rushing by at a speed of many miles per second, it mingles its poison with the atmosphere. It plunges on into space, leaving a world of ghastly, contorted deatb behind it-a dead world on which no living thing stirs.

Another means of world destruction is the much discussed astronomical phenomenon of the day, the nova. Novae are stars which suddenly and unexplainably become brilliant, flaring brightly for a few days, or even just for a few hours, and then dying down again. Astronomers believe them to be exploding stars. Suns, whose contraction has finally caused sucb pressure that inner heat, unable to escape, finally raises havoc, and bursts forth in supernatural brilliance, to utterly incinerate all the worlds circling it.

Were this to happen to our sun, we would be treated to a magnificent spectacle which would eclipse any fireworks display we could ever imagine. For a few minutes we would stare upward in awe, then would came the heat. Our atmosphere would blaze into incandescence, its oxygen flaring brilliantly, consuming all the surface in one furious burst of energy. And when the nova died, a blackened, crisp cinder of a planet would be all that remained of a once teeming world.

A third manner in whicb earth's demise could occur is tbat of actual suffocation. Out in space there are areas known as "dark spots," such as the coal sack. Some theorists claim these areas to be clouds of opaque material, such as dust. Just a very small cloud of this dust, blanketing the solar system, could precipitate enough dust and ash to cover the earth miles deep in a stiffing blanket of death.

Were this to occur, we would witness a gradual darkening of the stars in a certain quarter of the heavens; a dark area which would constantly grow. Then would come a dimming of the sun. Dust and ash would begin to sift down, accompanied by displays of meteoric flame. And soon would come tremendous electrical storms. Perhaps even before dying of suffocation and dust, every living thing would be electrocuted by a webwork of lancing lighting which would blanket the earth with incinerating amperage. And once the cloud had passed, the sun would shine down on nothing but an arid desert, unbroken even by an ocean or a protruding mountain.

The fourth death that could come to earth is the return of an ice age. We've had five of them already, although obviously they were not severe enough to entirely wipe out life, because the sunlight came again, and renewed it. But out in
space, observers have noted through their telescopes, and on their photographic plates, certain stars which have dimmed and disappeared. Apparently they were wiped out. But this is not a possibility, so the only answer is that they have ceased to radiate light. Something has occurred to their structure which has cut off their radia-tion-suddenly and effectively.

If this can happen to one star, it can happen to another. Our sun is no exception. Some unknown law of physics or chemistry might cause a
change in the atomic structure of the sun, cutting off its radiation, either for millennia, or permanently. In that case, it would mean the total destruction of all life on earth before an advancing wave of utter cold, and the inexorable creep of the oceans, as ice sheets, over all the land areas, until no visible surface remained. And so long as the sun withheld its heat, the ice would remain, clutching a frezen hand about the heart of life, stopping its feeble heat.

It can happen-Tomor row !

## MONTHLY MERIT AWARD

As announced in our last issue, each month, until further notice, Amazing Stories will pay to the author of the leading story in that issue, as determined by the readers' vote of popularity, a bonus of $\$ 50.00$ in addition to our regular rate. In this way we will reward the authors of exceptional stories, and provide an additional incentive to create top-notch fiction for our readers.

When you have read the stories in this issue, fill out the coupon below, which has been so arranged that its removal will not cause deletion of any story or article. Number the stories in the order in which you rank them, from 1 to 7 . These votes will be tabulated. and the results announced in the second following issue.

Already this new feature has found great popularity with our readers, as well as with our writers, and the interest in voting on the best story has been extraordinarily keen. We appreciate the fact that our readers are in accord with our idea for rewarding those writers who turn out really worthwhile stories.

We cordially invite our authors to keep on trying for these awards, as they are now, and we can guarantee some really fine things in the future for both writer and reader.
Don't miss the next issue of Amazing Stories, and learn which story won the award for April.

## CLIP THIS COUPON AND MAIL

## AMAZING STORIES <br> 608 S. Dearborn St. <br> Chicago, Illinois.

In my opinion the stories in the May issue of Amazing Stories rank as follows:
No. Here
SECRET OF THE BURIED CITY, by John Russell Fearn $\qquad$
WHERE IS ROGER DAVIS?, by David V. Reed
THE CITY OF OBLIVION, by Bradner Buckner


WAR WITH JUPITER, by W. Lawrence Hamling \& Mark Reinsberg
THE CURSE OF MONTEZUMA, by Ed Earl Repp
THE FOREIGN LEGION OF MARS, by F. A. Kummer, Jr.
THE WEAPON TOO DREADFUL TO USE, by Isaac Asimov
Name
Street

City
State

## QUIZ ANSWERS

(Quiz on page 141)

## SCRAMBLED SCIENCE TERMS

1. CARBON
2. TELESCOPE
3. GAMMA
4. ATOMIC
5. CANCER

## PROBLEMS

1. By dividing the lot diagonally, from corner to corner.
2. Your answers to this question should he as follows:
a. 0,1 , an infinite quantity.
h. 1 .
c. Infinite quantity.
d. 0 .

Technically, all three answers to (a) are correct. The mathematician says the answer is indeterminate. The answer to (h) is naturally 1 . The answer to (c) is an infinite quantity, hecause only one of the rules can he said to apply. (d) is zero for the same reason.
3. He would direct $B$ to the north magnetic pole, hecause his magnet would present its north pole to the earth's north magnetic pole, and knowing that unlike poles attract each other, he would be certain that the south magnetic pole lay at that point. It is a fact that the earth's north magnetic pole has heen misnamed, as proven by the laws of magnetics.

## SCIENCE TEST

1. An anthropoid ape.
2. No appreciahle amount.
3. When it is more distant than usual.
4. A reflection from snow crystals floating in the atmosphere. Otherwise called "mock suns"
occurring in the parhelic circle, a band of white light around the horizon, at equal height with the angular altitude of the sun.
5. $1 / 48$ th of an inch.
6. Avoirdupois.
7. The quantity of energy used to raise one pound vertically the distance of one foot.
8. A force which is : fficient to move one gram of matter at a speed of one centimeter a second for one second.
9. Fear of cats.
10. Small leaves.

## STRIKE OUT THE WORD THAT DOES NOT CONFORM

1. Aqua regia. This is a poison. The others are not, heing solely water.
2. Turtle. This is the only one of the group which does not bring forth its young alive, being an egg-laying creature.
3. Cat. The others are partially water animals.
4. Jasmine. This is not a jewel.
5. Pitch. The others are products of petroleum.

## TRUE OR FALSE

1. True.
2. False. It is 3 million miles nearer on January 1 , than on July 1.
3. True. Approximately 10 per cent of all gasoline is taken from natural gas.
4. True. It is much in demand in making perfume.
5. False. Spongy platinum will ignite artificial gas upon contact.
6. True.
7. True.
8. True.
9. False.
10. False. All have good eyesight.

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[^0]:    * Mitogenesis is absorbed and given forth by the cells of all living things, but it is so obscure that no instrument can detect it-though it is definitely there, as your experiments in America, Russia, and England have proven. One way to prove its presence is to expose yeast cells for a certain time to the radiation from other living germs: definite life actions result. The radiation goes through quartz, but not through glass, proving it is basically a chemical effect, and chemical fermentation is of course the basis of all life.-Gerald Herd's "Science \& Life."

[^1]:    * (Following is a transcript of the Record of Employment. I copied it from the files of the Metropolitan Sight-Seeing Corporation.-D. V. R.) Davis, Roger. Reserve Driver. Employed 7/9/38. Discharged 7/25/38. Reason: Intoxication and neglect of duty.
    Hendrix, James J. Announcer. Employed 7/7/38. Discharged 7/25/38. Reason: Intoxication and neglect of duty.
    (Note: The Chuck Conners referred to is still in the employ of the M.S.-S.C. He refused to make any statement regarding the events of the night of July 25, 1938. He admitted only that he remembered it well, for reasons of his own.D. V. R.)

[^2]:    * From Variety, July 27, 1938.

    Gift of Gab Goes Ga-Ga!
    Yesterday's Paramount audience, three thousand weak, with laughter, are scattered around New York today, swearing they saw America's ace one man dialoguer made to look like his dummy. Every time he tried to throw his voice a foot, somebody smashed it back to him from fifty yards away or further. They say that voice just materialized out of thin air. Sounds like hot air. A hearty huzzah for some smart press agent. What won't they think of doing with concealed loudspeaker systems next ?-D. V. R.

[^3]:    * (Excerpt from the New York Herald Tribune, August 4, 1938. Page 3.)
    BANK TELLERS HELD IN DISAPPEARANCE OF $\$ 5,000.00$
    Three senior employees of the Exchange Bank of Fifth Avenue were taken into custody yesterday as the Police Dept. and State banking officials prepared to investigate the disappearance of $\$ 5,000$ in small notes, in the early hours of yesterday's business. Held in secret were the men's names, all of whom are reportedly men of excellent records and long experience. What puzzled the Police was the fact that all three declared that the money, lying in a pile, had "disappeared into thin air." They would not budge from that statement, after admitting the manifest absurdity of their story. Commissioner MacReady of the Twelfth Precinct . . -D. V. R.

[^4]:    * Roger Davis evidently refers here to the Cherry Street fire, where more than four hundred perished. Almost three square blocks were completely burned on that black Friday of August 12, 1938. The files of any American newspaper carry the details. The newsreeks and radio reported it extensively, and a New York paper started a relief fund for the victims. The investigation which followed at the time proved nothing.-D. V. R.

[^5]:    * Note: Roger Davis here quotes almost verbatim the headline on the New York Times for August 19, 1938.-D. V. R.

[^6]:    * Following are several excerpts which I culled from leading New York newspapers, all commenting on the event which Roger Davis explains in the body of his Ms.

    From Heywood Broun, in his column, it Seems To $M e$, in the New York World-Telegram, August 21, 1938.
    ". . . not only was I present throughout the session until Mr. Veldon's tragic death ended it, but I remained to speak with Chairman Clark afterward. I, among hundreds of others, distinctly heard Mr. Clark denounce the Council, call it a pack of fools, and then announce that the session was ended. That started the fight, which Mr. Veldon led. The issue of the tax, which precipitated the fight, is not important any longer. What is important is that a major official of the City of New York attempted to run roughshod over his opposition in a dictatorial manner. Most astonishing, and probably the death blow to Myron Clark's political ambitions, is the fact that he immediately denied having said any of the words attributed to him. He denied it with such vehemence as to prove a testimonial to his histrionic abilities. . . ."

    From Arthur Krock's column in the New York Times, August 22, 1938. ". . . absurd for him to deny saying the things hundreds heard. . . ""

    From an editorial in the New York Post, August 20, 1938. ". . . Clark's denials are the ravings of a lunatic. Only a lunatic would have tried ending the session in the first place. . . ."

[^7]:    *The terrific gravitational pull of Jupiter, over two and a half times that of Earth, prevented freighters from landing and departing with a full load because all their fuel would invariably be consumed in the task of fighting the strain of the Jovian gravity.-Ed.

[^8]:    *Hydro-cyanic bullets are made upon the planet Jupiter, because of the large amount of the poisonous gas upon that planet. They have been outlawed by the Supreme Council on Earth, but still, Mars, and Jupiter continue to use them. . . . The distribution of hydrogen cyanide in the metabolism of a human being when hit by such a pellet causes a most unpleasant death by convulsion, hence, the reason for its being out- . lawed by the Council on Earth.-Author.

[^9]:    * Exactly at high noon (standard time) on September 23, 1938, the moment of the Autumnal Equinox, the Westinghouse Time Capsule, carrying a compressed storehouse of information about today's civilization, began its 5,000 -year journey into the future at the New York World's Fair Grounds.

    With the declaration: "May this Time Capsule sleep well. When it is awakened 5,000 years from now may its contents be found a suitable gift to our far-off descendants." A. W. Robertson, Chairman of the Westinghouse Electric \& Manufacturing Company, gave the signal to lower the burnished Cupaloy Capsule fifty feet into the ground at the site of the Westinghouse building, a model of which was afterward unveiled.

[^10]:    * Einstein postulated a long time ago that no display of energy can take place unless an equal mass of heat or energy has been sublimated into it. When a match burns, the wood, the chemicals, and the air around it go to make the new heatenergy. But what mass furnishes the flow of electrons necessary to drive an electric motor? Obviously this is what Killeen has discovered.

    All elements in the periodic table are constantly breaking down into simpler ones, losing electrons as they do so. The total mass of electrons freed every second is tremendous. It is these freed electrons that are converted into the new energy.-Ed.

[^11]:    *The Venusian eye can distinguish between two tints the wavelengths of which differ by as little as five Angstrom units. They see thousands of colors to which Earthmen are blind.-Author.

[^12]:    *The brain may be likened to an immenselycomplex pilot-room which contains the machinery that controls the body. The mind is then the intelligence or entity that manipulates that machin-ery.-Author.

[^13]:    Sirs:
    You've got another Amazing addict reading your magazine. Put me on your list for keeps.

