The Fall of Mercury by Leslie F. Stone
AMAZING STORIES
Science Fiction

Vol. 10 DECEMBER, 1935 No. 7

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Cover and Illustrations by Morey
Our cover depicts a scene from “The Fall of Mercury”

Published Monthly by
TECK PUBLICATIONS, INC.,
Office of publication, 29 Worthington Street, Springfield, Mass.

Executive and Editorial Offices: 461 Eighth Avenue, New York, N. Y.
Lee Ellin, Pres. and Treas.
B. M. Hocepl, Sec'y.

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Air and Water

By T. O'CONOR SLOANE, Ph.D.

There is no question that many factors of our life as affected by the most familiar of things on this earth absolutely never attract our attention. We draw upon our resources, without thinking of those who are to come after us, and go exhausting far faster than we realize what is to be the fate of those who are to come after us. Of course this does not affect us personally. But what would be the effect, if, sometime in the near future, the Lake Superior iron mines were exhausted. And they are being drawn upon remorselessly. There is nothing comparable to them as far as we know in this country. The beds of ore are not even a mine, they are open to excavation as if a giant ditch were to be dug. Cheap water transportation of the ore, at least part way to its destination, across the Great Lakes, is a factor of the economy. But what becomes of the iron?

It is easy to say that it goes into steel-frame buildings, into the automobiles of this country and for export to other lands. It is used for innumerable other manufactures. But the question remains unanswered. What becomes of it in the final analysis? Try to destroy a piece of iron, to reduce it to useless oxide. It is not easy to do. But give it time and the destruction will inevitably come to pass in the majority of cases. The way in which this loss is avoided is simple enough. The discarded metal is worked over and used again, with a certain amount of loss. But a great percentage goes into rust and disappears.

The above paragraph presents what may in future ages be a very serious problem. No one can say how long it will be before iron will be a comparative rarity. Every conversion of scrap iron into finished products involves a loss. What would an ironless world be like may well be asked.
There are other things on this earth far more essential to our uses than any metal. The fortunate thing about these substances is that they are not being exhausted. One of them is so essential that without it the world would be depopulated in a few minutes. This substance is the gas, oxygen. We need it for our very existence, and it is a strange thought to realize how little there is of it.

The atmosphere is for our needs about one four thousandths of the diameter of the earth in thickness or depth. This is a very limited quantity if it were being exhausted as our forests are. But of the atmosphere only approximately one fifth of its volume is oxygen, and that is the gas essential to our life. The nitrogen of the air is merely a diluent. It is true that mankind in some instances lives well above the surface elevation. But it is fair to take the above figures as approximations to the average requirements for mankind.

Animal life as one of its characteristics lives by inhaling oxygen. Some forms of subaqueous creatures certainly use it in great moderation. But it is being consumed in great quantity by warm-blooded animals. The one-fifth part of it is all that is used, the other constituents go for nothing. It is also subject to a change in its composition by its use for animal life. Air always contains a small percentage of carbon dioxide. Animal life is a contributor to this, for the exhalation of the lungs adds its quota to the carbon dioxide, the gas of combustion. It is fair to say that man without food would at least make a start at burning up. Eating supplies the fuel essential to our life, and its effect on the system is measured by calories, the unit of heat. The physiologist treats food as if it were coal or wood. He measures its heating effect by the same unit used to express the value of coal for the metallurgist or of oil for the modern liner. The animal vitiates the air by adding carbon dioxide to it. This is the gas that causes the effervescence in soda water.

The atmosphere is subjected to a purification by plant life. Plants operate as air-conditioners. They absorb carbon dioxide from the air and by a quiet decomposition separate the carbon from it and exhale oxygen. It is not exactly as simple as this. But we know that the plant separates the constituent parts of carbon dioxide from each other, and in the laboratory such a decomposition ranks as one of the more difficult. The plant is a very good analytical chemist. Thus the plant life of the earth purifies the air.

Imagine a ball or globe eight inches in diameter. This would be a fair sized one. Then imagine a layer of a gas, air it should be, adhering to it to a thickness of three one thousandths of an inch. It should be thicker but for our purposes this would represent the air to a height of a good sized mountain. Many people have difficulty in moving about or with any but the slightest exertion on high mountains. The thickness we have given is a fair representation of the depth or height of the layer of air available for most of us. It is an astonishingly small depth. It would seem that some cosmic catastrophe might readily sweep it away in a few seconds and leave a complete wreck of animal life on the earth’s surface. The comparison of the earth with an eight-inch globe, whose diameter is on the scale of one inch to the thousand miles gives a realization of the trivial ocean of air in which we have our being. And it is only the fraction of oxygen gas in air that keeps us alive. Many of us are so
constituted that a height of ten thousand feet is uncomfortable, if we exert ourselves in any but a slight degree.

The lungs do their duty but the strain is felt by the heart. As an example of what the effects of high altitudes can be there is difficulty in boiling beans on high mountains; the boiling point of water is so low at high elevations.

If we take the weight of our atmosphere, which would involve for an approximate calculation a simple enough operation, and take one fifth of it as the all-essential oxygen, it will be found to weigh astonishingly little. The specific gravity of the earth approaches that of metallic iron. The air blanketing the earth is of minute volume compared to that of the sphere it clings to so faithfully and its specific gravity is so low that it is an infinitesimal fraction of the weight of its attracting sphere, the earth.

But for mankind it is wonderful what powers of destruction it possesses in tornadoes and other types of motion.

As far as mankind is concerned it is everywhere. No spot on the earth is without it. Yet from the standpoint of weight it is one of the rarest things on earth. The specific gravity of the earth is between five and six times the unit basis; air diminishes in specific gravity as it is at a greater height above the surface of the earth. So if we take its specific gravity at the earth’s surface and divide it by two it would represent the factor for calculating the total weight of the air as far as its use and importance to mankind is concerned, because the upper air will not support life. The very thing that keeps us alive is really a comparatively rare substance, we may say five times as rare as the above considerations would make it.

There is another substance which is very rare. It is water, a calculation similar to that we have applied to air, will show that there is really very little of this liquid with us. The relative area of the ocean and land is taken as approximately two thirds water and one third land. The deepest part of the ocean in the Pacific Ocean near the rather insignificant island of Guam is about 61/4 miles. In the Atlantic Ocean the deepest sounding yet taken is near the Island of Porto Rico, where it is 41/2 miles in depth. It is obviously impossible to get any reasonably accurate estimation of the depth of the great body as we may call it, for it is that as far as we are concerned. But return to the eight-inch globe which has been cited here. Water at the average depth of the ocean would be a little over one four thousandth of the diameter of the earth. Then the depth of the ocean on the eight-inch globe would be represented by a mere film of water, one four thousandth of eight inches, say one five hundredth of an inch, a mere moistening of the surface.

But not all the earth’s water is in the ocean, not even in the lakes and rivers. The air contains what we generally call dampness or to be a little scientific, humidity. This is evaporated by the sun directly or indirectly, and is in the full sense of the word distilled water, but aerated to make it palatable. At least this is what it is to all intents and purposes.

Here the ocean is the sun’s reservoir from which it draws countless tons of water. Man needs fresh water. So just as the chemist evaporates water in a retort and collects the distillate by cooling it, so as to get pure water for his analysis, the ocean is evaporated by the sun, all the impurities being left in the sea. Then by changes of
meteoric conditions, such as the temperature of the air, the gaseous water or the water in the form of little particles in the air is brought into the form of drops or solids and falls to the earth as rain, snow, or, not so frequently, as hail.

This atmospheric water does various things. Some falls on mountain tops, where if cold enough it freezes as, or before it falls, and forms glaciers. Some falls on hill tops where the ground is so porous that it forms a spongy reservoir and holding the water feeds it out slowly or perhaps in considerable volume to form cataracts. Travellers in Norway will have noticed the endless number of cataracts, which flow from the hill tops. They are innumerable; sometimes it seems as if there was no getting away from the noise of their falling. Some fall on ordinary country and moistening the soil drain into rivers and so return to the ocean. This river flow applies to all rainfall. There is an endless circuit followed.

The flowing of rivers into the sea certainly carries impurities into the ocean, so that its content of solid matter held in solution should increase from year to year. Yet there is no record of any increase in soluble matter in the ocean water. One interesting thing is that sea water contains gold. The percentage is extremely small, it has never been extracted profitably, but there are prospects of the extraction being achieved.

The deepest shafts which have ever been sunk into the earth are not far from half as deep as the average depth of the ocean. This must be taken with the reservation that the figure for the average depth of the ocean is little more than an "educated guess," for we really know nothing with certainty about it.

The ocean has its currents, such as the gulf stream, which have a great effect upon climate. England's gentle climate has been attributed to the gulf stream, bringing the warm waters of the tropics to the distant shores of the British isles. It is safe to say that everyone does not know that England is well north of New York, yet its climate is far milder.
The Meteor Miners

By L. A. ESHBACH

It is some years since our readers have been favored with a story by this author. Mr. Eshbach is definitely a highly approved author, especially in the realm of science-fiction. While the title of this story suggests interplanetary travel, it is not the old version of wars fought in outer space, and is suggestive to the extent of describing the utilization of meteors for the obtaining of iron. The iron deposits on the earth cannot last forever.

In the Earth, Venus and Mars Transportation Lines, Inc., men come and go, and are forgotten—many of them in the course of years.

But some are remembered—and old Steve Anders is one of them. Men of the E. V. & M. smile when old Steve is mentioned—understanding, respectful, and full of admiration for a brave man.

Steve Anders was a meteor miner, one of the first in space—and, in his prime, one of the best. The E. V. & M. was still a dream in the mind of a lad named H. C. MacDonald, as Steve shipped on his first dangerous cruise into the void. At that time, a group of venturesome young men came to the conclusion that there were vast possibilities in salvaging the countless tons of almost pure iron that were flashing through space as iron meteors*, and which could be had for the taking. They had organized The Meteoric Iron Co. Derisively they had been called "meteor miners"—and the name had stuck. Steve Anders was their second employee.

A dangerous job it was, a job for brave men—but it isn't for that that

Steve is remembered. Other brave men in other dangerous jobs have long since been forgotten. Forty eventful years passed before Steve Anders won his place in the hearts of his fellow workers.

In the interim, H. C. MacDonald organized the E. V. & M., and started it on its steady growth in power and size. In the course of time commercial contracts were made with the inhabited satellites of Jupiter and Saturn—and the demand for iron immediately exceeded the available supply, for iron was a rare element on those smaller, lighter bodies. With customary foresight, H. C. MacDonald bought The Meteoric Iron Co., and made it a brance of the E. V. & M.

Occasionally Steve Anders left space for a job on earth—but he always returned. It was during one of these periods of absence that "Meteoric Iron" changed hands—and Steve could not come back. Applying to an E. V. & M. employment manager for a job, he met with a curt refusal; meteor mining was the most dangerous industry in space, he was told, and not a job for old men! Steve went away with bowed head.

Ten years passed, and—but that's the story.

There goes the starting bell; they're closing the airlocks . . . and we're off!
The Captain! Had he gone insane? For suddenly his steel rod had leaped out at an enormous passing meteor—a monster that must have weighed hundreds of tons.
A TALL, powerfully built man with close-cropped black hair, and black eyes that when occasion demanded, could become coal black and seem to lose their pupils, sat in the private office of H. C. MacDonald, president of the E. V. & M. He was Captain Cal Barker, the fifty-five-year-old commander of the fleet of Meteor Miners. A grim, stern-visaged man was Barker, a man who had fought his way to his present position by sheer force of determination—and, at times, by efficient use of two battering-rain fists. His nature had a softer side, but it rarely came into view.

It was October, and he was discussing with his superior the forthcoming departure of the fleet for the Andromids*, the swarm of meteors which touched earth’s orbit, between the seventeenth and twenty-seventh of the following month. The cruisers would follow the path of the swarm for three months, stowing meteoric iron into their holds, then return to earth with their haul, unload, outfit their crafts for another voyage—and head out into space in search of another meteoric swarm.

Suddenly the sound of a buzzer broke in upon their conversation, and the short-clipped sentences of a secretary came through a radiophone. "A visitor to speak with Captain Barker. He is very persistent—insists on seeing you. His name is Stephen Anders. An old man, poorly dressed—shall I permit him to pass?"


*A swarm of meteors moving around the Sun on an elliptic orbit, possessing a period of 6.6 years. According to popular astronomical belief, the Andromids are the remains of Biela's comet which in 1846 divided into two, and subsequently disintegrated, to form a swarm of meteors. This particular swarm, like others that touch the orbit of the earth, was named for the constellation—Andromeda—from which it appears to radiate, i.e., its radiant.

A moment later the door opened and old Steve Anders shuffled in, nervously twisting a battered derelict of a hat in his gnarled hands. Sparse white hair covered his head, and countless wrinkles creased the skin of his face that was not concealed by his thatch of short, snowy whiskers. His seventy-odd years of life rested heavily upon his bent shoulders as he paused inside the door, his faded, blue eyes shifting almost apprehensively from Captain Cal Barker to H. C. MacDonald and back again.

Abruptly the Captain leaped to his feet, a smile of genuine pleasure on his face. He caught the old man's hand and wrung it warmly.

"Old Steve Anders! You space-eater you! Where've you been keeping yourself for the last fifteen years? Somewhere on Mars or Venus, I'll bet, prospecting! I'm glad to see you, Steve, glad to see you! Come on, man, open up your airlock!"

Steve Anders smiled his appreciation, tears filling his watery old eyes. He had become so accustomed to hard knocks during the last ten years that a kind word meant much to him.

"I don't like to bother you, Cal—Cap'n, sir. I thought maybe you'd forgotten me—but I just took a chance." His voice was thin and quavering, older, it seemed, than the man himself. Yet, somehow, there still clung to it a suggestion of former power.

"Forget you!" Captain Barker exclaimed. "Forget Steve Anders!" He turned to H. C. MacDonald. "This is the man, sir, who taught me what I know about meteor mining. Twenty years ago he was the best man in the game, sir—barring none; and I worked with him, a raw, space-shy recruit. For two seasons we were high craft for tonnage—and it was all Steve's doings!"

H. C. MacDonald looked at the old man with new respect in his eyes. "Some
record,” he commented. “I’ve watched meteor men at their work—and it’s not a soft snap, by any means.”

CAPTAIN CAL BARKER snorted. “Soft snap! Huh! What you watched is a soft snap compared to meteor mining in the early days. Today we use magn-o-bars, separated from the space boats by fifty or a hundred feet. In those days we magnetized the outer steel shell of the cars, and used them to pull the meteors from their course. Lots of fun edging up to a mass of iron flashing through space at the rate of twenty-six miles a second—I don’t think! And that’s their average speed. A little jump in the wrong direction—and your boat was smashed to bits... And we didn’t have atomic power in those days, either; we used rockets! Soft snap! Humph!”

“Say, Cap’n, sir,” old Steve interposed rather timidly, “I still got the old boat! Bought her when they changed over to these new contraptions, and had her stowed away. They was goin’ to scrap her—the best little craft that ever rode the sky-lanes.”

“You would, Steve, you would! The way you polished that tank! You thought more of her than anything else—next to your wife.” The Captain’s voice softened. “How is your wife, Steve? Passed away?”

The old man drew himself up proudly. “No, Cap’n, she’s spry as ever. Gettin’ on in years—but she’s still waitin’ for me to settle down, sir. An’—an’ that’s why I came here to see you.

“Twenty years back, Cal, my lad, we worked together—an’ I was wonderin’ if we couldn’t do it again! You see, I’m tryin’ to make enough money to last me an’ Sarah the rest o’ our days. Ten years ago I tried to get back to meteor minin’—but they said I was too old. It’s not so, Cap’n; I’m as good a man as I ever was—even if my hair has turned white!”

“I tried prospectin’ on Venus, but it’s pretty hard lines—not my kind o’ work—I don’t feel at home on land. Tried other things, always on my own, but I can’t seem to do any savin’ just make enough to keep me an’ Sarah goin’. An’—an’ I won’t take charity!”

“When I found out that you was in charge of the Iron Fleet, I figured maybe you’d maybe give me a chance, Cap’n, to make my pile so I can settle down. I—I’m as good a man as I ever was!”

Captain Barker frowned blackly—but not because he felt like frowning. He did it to conceal the sudden unwonted emotion that had stirred him. Steve Anders was old—old and well-nigh useless—but he wouldn’t admit it, not even to himself.

“How’s Barker said gruffly, “I think I can do something for you. Drop around to the fleet’s quarters at the space-port about nine to-morrow mornin’, and ask for me. I’ll be there.”

“Thank you, Cap’n—I’m mighty grateful! I knew you was enough of a space man to stick to an old pal.” Sudden eagerness entered his voice. “An’ when we leave for the swarm, sir, I’ll take the old car along! Still got her loaded with fuel, Cal—Cap’n, sir. An’ we’ll show ’em what a real haul is!” He laughed happily. “They said I was don’t for—but I’m still good for quite a few years.” And mumbling his thanks, old Steve Anders shuffled out through the doorway, one of those pathetic derelicts, tossed aimlessly about by the tides of life.

For several moments after the old man’s departure, there was silence in the office of H. C. MacDonald. Then the president of the E. V. & M. ran his fingers through his bristling gray hair and cleared his throat.

“Well!” he exclaimed finally.
Captain Cal Barker frowned reflectively. "Well, I know one way we can work it. We'll ship him as assistant to the boat dispatcher. All he'll have to do is watch the visiplates, and warn the meteor men if there's any danger, or if they're going too far. And Steve'll rate a higher pay than he would as a miner."

Slowly H. C. MacDonald inclined his head. "Guess it'll work that way," he agreed as the Captain arose to leave. He gripped the other's hand. "Good luck on the voyage. Report when you get back."

"Thanks," Captain Barker returned, his face assuming its normal grimness. "I won't see you before we leave; be too busy." And with that he passed from the room.

H. C. MacDonald sank into a chair, and stroked his chin thoughtfully. "It's tough to be old," he murmured at length, "but it's hell to be old—and useless!"

In a wedge formation the thirty-three cruisers of the Meteor Fleet flashed through space toward the Andromids. The space ship *Atlas*, with Captain Cal Barker in command, formed the apex of the wedge. They would maintain that formation until they reached the meteoric swarm then they would separate and spread out over the Andromid's orbit, to reunite three months later for the return to earth.

Old Steve Anders was on board the *Atlas*, clad in the conventional E. V. & M. blue. Smooth-shaven, more erect, his appearance was changed slightly, but he was nevertheless an incongruity among the members of a crew whose ages averaged thirty or thirty-five years.

Old Steve was unhappy. True, he was glad to be back in the vaults of space, glad to feel the rush of acceleration as the cruiser sped through the
void, glad to see the starry blackness sweeping past the portholes—but he felt that he had had a submit to a gross injustice at the hands of Captain Barker. He, one time champion of the Meteor Fleet, chained to the cruiser while the miners would speed away to the excitement of the chase in their little, two-men boats! He, Steve Anders, assistant dispatcher! It was ridiculous! They had permitted him to bring his old craft along—but they wouldn’t let him use it! And he was just as good a man as he ever had been.

Hugo Mott, the Dispatcher, a little, light-haired man of about twenty-five with a big voice and a white liver—so Steve had decided when he met him—noticed his assistant’s gloom.

“Come on, old-timer,” he bellowed, “snap out of it! What ails you, anyway? You look like one of those Venarian death-worms was chewin’ at your guts!”

Old Steve scowled distastefully. He didn’t want to talk with this noisy little vacuum-head. But talking might help anyway.

“Well, if you must know,” he complained in a thin voice, “I think it’s a shame that Cap’n Barker didn’t have sense enough to ship me as a miner. Me, Steve Anders, an inside man! I’d show ’em all somethin’ if they’d let me go.”

“Yeh?” Mott sneered. “You don’t seem to realize that they’re savin’ your life for yuh by keepin’ yuh in this boat. It’d be suicide for you to go out in that old rocket kettle I saw ’em stow in one of the boat racks. Besides, you’re pullin’ down more money than the miners are—without a risk.” He paused an instant to emit a hoarse laugh, then swept his hand about, indicating the double row of televiser screens. “This is a soft job compared with that . . . And you can’t seem to get it through your dome that you’re done for! I’m surprised that they gave you a berth at all. Barker must be crackin’ up; never did have much sense anyway.”

Sudden resentment flared up in old Steve Anders, and a hurt look came into his eyes. Then he shrugged his shoulders and turned away. What was the use? It was always thus—had been from the outset. The men had joked about his old boat, and in defense he had told some of the things that the old craft had done—and they had laughed! He’d show them—by God, he’d show them!

Then he shook his head sorrowfully. He’d never get a chance to show them. Within a few hours they’d reach the Andromids, the fleet would break up, and he’d start on his routine, inside job.

Suddenly Steve whirled in his tracks, the sound of an angry voice in his ears—Captain Cal Barker’s voice. The latter had entered.

“So I’m cracking up, am I, Mr. Mott? Never did have much sense, anyway, eh? Be a little more careful, hereafter, what you say, and where you say it!” With the words a hard fist crashed against Hugo Mott’s jaw and sent him sprawling. “If you weren’t such a good man at the screens,” Barker continued in an icy voice, “I’d see that you had your space license taken from you for that. I’ll have discipline on board my ship!”

The Captain turned to Steve. “Mr. Anders, we’ll hear no more about that old rocket boat of yours. It may cause trouble—and we must have discipline!”

“Yes, sir,” old Steve replied.

After Barker had gone, Mott crawled to his feet, caressing his jaw and mumbling curses. Steve saw an ugly, sullen light in his close-set black eyes.

“I’ll get him for that,” the little Dispatcher muttered—and glanced
fearfully over his shoulder as the words left his lips.

Steve Anders looked at him with scorn in his glance. "Dirty little rat," he thought. "Yellow clean through."

Within the next two hours the incident in the television room passed from the mind of old Steve Anders. A nervous tension gripped him. For they had almost reached the orbit of the Andromids. More, they were approaching the main body of the swarm, what had been the head of Biela's comet, until it had broken up almost two centuries before.

Even now the fleet was separating at Captain Barker's orders. In the big visiplate Steve watched them go. One after another they sped away, vanishing in the blackness. Finally all were gone, searching out different portions of the swarm's orbit, and the Atlas flashed alone through space.

Suddenly bells rang out through the great, cylindrical space ship—a signal. The meteors lay below them! No man could see them, but delicate detectors revealed their presence on the space charts.

In a moment the chambers of the Atlas hummed with activity. The meteor miners rushed for their respective two-men crafts, stored in the boat racks near the base of the cruiser, and prepared for their first excursion into space. As they finally closed their airlocks, each crew switched on their radiophones and visiplates; and in the Dispatcher's room twelve screens flashed into life. Each bore an image of the corresponding meteor car resting in its rack; and beside each screen was a dial that would record the distance separating the smaller craft from the big cruiser.

When all were ready, Mott released them one by one, and under their own power, each towing a huge iron bar, wound with insulated wire, they darted into the void.

Watching the screens, old Steve Anders saw them speed into the swarm, find iron meteors, and begin the struggle to check their flight—and a great ache gripped his throat. It wasn't fair! They wouldn't give him a chance.

With his eyes he followed one of the craft in its efforts. Now it was creeping up beside a jagged mass of metal. Suddenly the iron bar leaped out against the meteor as the crew sent a current through its coils, transforming it to an electro-magnet. The cable tautened; and the car and the meteor sped along side by side.

Slowly the men reduced their pace, arresting the speed of the spatial missile. Slower, steadily slower—and the thing was accomplished. With the mass of Meteoric iron held fast to the steel bar, they moved on, searching for a second victim. One, or possibly two more meteors they'd secure, depending upon their size, then they'd return to the Atlas.

That was the life! Old Steve watched the visiplates enviously. Of course, all the captures weren't that easy; occasionally big meteors pulled the cars along—but could not be stopped. Sometimes another car had to assist—and sometimes masses of iron had to be abandoned by reversing the current in the magnet coils . . .

Steve Anders sighed. He wanted to be out there too!

Suddenly a harsh voice broke in upon his thoughts. "I'll bet you're glad now that you're safe inside the Atlas." It was Hugo Mott. "Bein' old has some compensations, eh? Look at the risks them fools is takin' out there. Not for me, Old-timer!"

A hot retort sprang to Steve's lips, but he checked it as his eyes caught the figures on one of the distant dials.

"Number six is past the safety limit," he said.

"Right!" Mott grunted. He turned a dial; spoke into a radiophone: "Number six has gone too far. Turn back."
The work in the televisor room was largely a matter of routine. Mott and Steve had to watch the twelve illuminated screens, six on one wall, and six on the other, and periodically record what took place in space. There were two other screens, one on either side, screens for boats that were kept in the Atlas for emergency use—and a larger screen connected with apparatus in the control room, which revealed the surroundings of the Atlas itself. The latter likewise received some of Mott’s and Steve’s attention, and was the subject of written records.

This constituted all their duties—except when an emergency arose. Then the Dispatcher took complete charge of the cruiser and its smaller craft, issuing orders even to the pilots. Only the Captain was over the Dispatcher at such times, for on the latter rested the safety of the men in the small boats.

Old Steve wondered repeatedly how Mott had secured—and held—so responsible a position. “Cal must be losin’ his sense of judgement,” he told himself.

The first month that the Atlas spent in the orbit of the Andromids passed uneventfully. Meteoric iron piled up steadily in the hold of the space ship; and Captain Cal Barker saw visions of a most satisfactory expedition. Radio reports from the other cruisers indicated that they were having similar returns.

But at the beginning of the second month, the Atlas encountered an unbroken streak of misfortune. It began when one of the small boats crashed into a gigantic meteor, smashing itself into a shapeless mass of metal, and instantly killing its crew. It was the result of carelessness on the part of the miners themselves—but it threw a cloud of gloom over the rest of the men. Bad luck, they said, always followed a smash-up.

And bad luck came with a vengeance. For some unaccountable reason the nature of the swarm changed. There were meteors in great quantities—but few were iron meteors—the majority were worthless stone meteors. And the iron meteors that were seen were either too small to bother about, or too large to handle.

After a week of futile effort, Captain Cal Barker became a fighting, cursing fury. There was a stubborn quality in his nature that leaped to the surface when adverse conditions arose, a quality that permitted nothing to stand in his way. Restlessly he strode through the Atlas, from the pilot room in the nose of the cruiser to the engine room in its base, possessed of a cold, unreasoning anger.

His crew responded with frenzied efforts, taking chances that they would not have considered ordinarily—but all to no avail. The pile of iron in the hold increased with disheartening slowness.

In a rage Captain Cal Barker drove the Atlas into the heart of the swarm; and just as furiously as he drove his men. He raged about within the cruiser like one demented. Not good space ethics—but entirely in keeping with Cal Barker’s nature. And it did no good.

Old Steve Anders watched the turn events had taken with slowly mounting hope. Perhaps he’d get his chance now! Accordingly, after a period of particularly arduous but ineffectual effort on the part of the crew, he sought for the Captain.

“Cap’n Barker, sir,” he began somewhat hesitantly, his voice quavering despite the eager glow in his faded eyes, “things haven’t been goin’ so good lately, so I thought maybe—maybe you’d let me take the old car out, an’—an’ do what I can! Every man
counts, sir; and Mr. Mott can get along without me. It isn't askin' much, sir, and I . . . ."

His words trailed off into silence as he caught Captain Barker's changing expression. His eyes seemed to snap fire from their coal black depths, seemed to lose their vision; his heavy eyebrows drew together in a fearsome frown; and his wide, powerful jaws were clamped together, his lips compressed, and his nostrils dilated, as he strove to control himself. When he spoke, finally, every word was clipped off as thought by a knife.

"Steve, if it had been anybody but you I'd knock 'em head over heels into a corner! Bother me with your foolishness at a time like this! Listen, Steve; you know me! Think I'd have put you inside if I'd thought you capable of running a boat? We had one smash-up; we don't want another! No, Steve, it can't be done—so forget it!"

Shoulders sagging sorrowfully, Steve Anders turned away.

"Steve!" He turned at Barkers' exclamation. "You're right about one thing. Every man counts. So I'm going out with the men! Tell Hugo Mott. And, by damn, I'll bring in iron!" With a final imprecation, he whirled and ran down the spiral hallway toward the space car racks.

Mechanically Steve Anders returned to the Dispatcher's room, and delivered the Captain's message.

"Another fool—bigger than the rest," Mott remarked with a sneer. "Thinks he can do better than anybody! In a pig's eye!"

Old Steve paid little attention to his superior's tirade; he was accustomed to it. A few moments later as one of the emergency screens lit up, he watched with interest—and a shade of resentment. The Captain had usurped his place—the place of the one-time champion of the fleet!

Out into space Captain Barker's craft flashed, trailing the steel bar. He was alone; he had no assistant. And he began bringing in iron—iron in surprising quantities. He captured meteors of seemingly impossible size; he thrust himself into dangers with a daring that appeared to be the height of folly—and escaped. He seemed to possess a charmed life, and acted as though he knew it. Tirelessly, hour after hour he toiled, setting a pace for his men.

Old Steve Anders watched anxiously. The Cap'n shouldn't be taking such chances. He was a little harsh at times, but he was a prince, nevertheless. His old pal. "He'll get into a smash-up, actin' like that," Steve muttered. "Shouldn't have left him go—I've had much more experience than him—and these new boats can't stand up against the old ones."

HEY, Old-timer," Hugo Mott growled, "can the chatter! What're yuh excited about? . . . Look—look at that old fool go! He'll spill his guts all over the sky, if he don't watch out. Well—I won't do much weepin'!"

Now the Captain was coming in again with a huge meteor fast to his steel boat. And the others were returning more frequently to deposit their hauls. Back—then out again . . .

"Call in the men! Call in the men! Hurry!" A voice came through the radiophone from the control room. "We've sighted a comet—computed its path—and it intersects the orbit of the Andromids at this point. It's big enough to send us all to Kingdom Come!"

With a frightened scream, Mott pointed toward the big visiplate at the end of the room. "Look at it! My God, look at it!" His face was a sickly yel-
low; he cringed with cowardly dread.
A comet unquestionably was rushing
toward them; Steve saw it on the
screen. A gigantic thing, a mass of
incandescent gas, rock and metal, its
brilliance, magnified by the finder, was
almost blinding.

Steve spun around on his heel, his
figure suddenly filled with youthful
animation.

"Quick," he exclaimed, "call in the
boats. There's not a second to spare!"
Hugo Mott made no move. His fear
seemed to have anchored him to the
floor. "We—we gotta get away," he
gasped.

Old Steve brushed past him con-
temptuously and sprang to the master
radiophone. He threw in the switch,
and sent his message to the twelve
crafts in space.

"Back to the Atlas, men! We're in
the path of a comet—it's due to strike
in a short time. We'll have to move
—fast!"
With the words old Steve leaped
back to the visiplates. The men were
returning with all possible speed. Some
had not needed his warning; they had
seen the spot of brilliant light rushing
toward them, and had grasped its por-
tent. All were returning—all, save...

Old Steve gasped in consternation.
The Captain! Had he gone insane?
For suddenly his steel rod had leaped
out at an enormous passing meteor—
a monster that must have weighed hun-
dreds of tons. And it flashed along at
a terrific pace, taking the Captain's boat
with it! It seemed to be speeding di-
rectly toward the point where the heart
of that onrushing comet would strike!
Leaping to the radiophone, Steve cried
in a frenzied voice: "Captain—number
thirteen—come back to the Atlas! It's
sure death unless we get away at once!"

And from boat thirteen came the re-
ply, strangely calm, "I can't, Steve,—
can't let go! The damned thing seems
to be magnetic—just grabbed me and
started pulling me along. And it's far
too big for one boat to handle. Soon
as the others get back, have the pilots
get the Atlas out of the comet's path.
So-long, Steve!"

As old Steve stared at the radiophone
in stunned silence, Hugo Mott sprang
into action with an eager snarl. His
face was pale and beaded with perspira-
tion.

"They're all in now!" he cried. "We'll
be outa this jam in a minute!" He
called the control room and began issu-
ing orders.

"Wait, Mott," Steve interrupted, grip-
ing the other's arm. His thin voice
shook with emotion. "You can't leave the
Captain like that! We gotta—"

"Can't, eh? Who said so? Let go my
arm, you crazy fool—we gotta get out
of this now! If Barker burns out, that's
his funeral, not mine! He has it comin'
to him, anyway, the damned fool! Get
out!" With a single, furious sweep of his
arm he sent the old man crashing into
a bank of telesistor screens.

Slowly Steve arose, supporting himself
with out stretched arms—and the fingers
of his right hand closed on a steel rod
that his body had torn loose. Suddenly
he straightened; his jaws clamped to-
gether. By God, they wouldn't leave
Cal Barker—not if he could help it!

With a single bound he reached Mott's
side, and the steel bar crashed against
the back of the Dispatcher's head. His
knees sagged and he sank to the floor.

"CANCEL those orders," Steve
called to the control room; and
there was no waver, no hesitancy in
his voice. "The Captain hasn't come
back yet, so we can't go. Full speed
ahead along the Andromids' orbit. Slow
down when you see me leave the ship!"

A moment later Steve Anders was
running rapidly down the spiral hallway toward the boat racks. He—he’d show ‘em what that old boat could do—and bring in the Cap’n at the same time!

As he ran Steve calculated hurriedly. He had noted the Captain’s distance from the Atlas; he knew the approximate speed of the cruiser and the meteor . . . they’d reach the boat in about three minutes. He’d have to work fast—but there was still time to make it!

He dashed through a wide doorway past several returning meteor men, and crossed to his old steel-jacketed rocket boat. He passed through the open airlock, clamped it into place, and with roaring rocket vents, sent his craft toward the ceiling and the vacuum tunnel. The removal of the boat’s weight from the rack had automatically opened the airlock, he passed through it; it closed behind him—and he was out in space.

Anxiously Steve looked through a little porthole, searching for the Captain and his meteor. He sighted them—far ahead—and sent his craft roaring after them.

A wave of misgiving passed over old Steve. At closer range that jagged mass of iron looked incredibly large! And that comet was drawing dreadfully close! For a moment his courage almost failed him; he felt suddenly very old and weak. Perhaps—he wasn’t as good a man as he had been at one time! For an instant he wished that he were back home with his Sarah, away from all this danger. He thrust the thought from his mind. The Cap’n had to be rescued!

With all the skill of former years, old Steve Anders eased his craft toward the meteor, on the side opposite the Captain. The thing drew him toward it; it was magnetic, as Barker had said. At the proper moment he closed the switch that magnetized the steel bar—and clung to the mass of metal. Then, just as he had done it countless times before, he checked his speed with rocket charges from the nose of the craft.

Could he do it? The Captain’s boat was holding back too—would their combined power be great enough? . . . Old Steve breathed a sudden sigh of relief. They were slowing down! They would only need a few more moments to check it entirely. But was there still time! What about the comet?

He cast a glance through a porthole. The incandescent mass was almost upon them! But the Atlas—it was closer; and the great airlock into the hold was open! The pilot had been following, and had divined his intentions.

A rush for the airlock—a sudden jar of acceleration as the Atlas got under way—and the cruiser was speeding out of the danger zone, bearing old Steve Anders and his Cap’n to safety.

Behind them flashed the comet, its head a brilliant mass of fire. It moved with terrific speed—but the Atlas moved even more rapidly. Then ran before it, then turned away from its path, and watched it vanish into the blackness, trailing its fan-shaped, wraithlike tail.

ABOUT twenty minutes later a group of men gathered in the mess hall. Every member of the Atlas’ crew was there except the pilots and the engine men. Captain Barker, Steve Anders and Hugo Mott stood in the center of a rough circle.

“Boys,” Captain Barker announced grimly, “we’ve all just escaped from a tight corner—and I was pulled out of a tighter one—but that’s past. We’re getting iron—and we’re going to continue getting iron. But I didn’t call you here to tell you that. I want to introduce you to two different types of men.”
He faced the cringing figure of the Dispatcher. “Mott,” he said coldly, “you must have forgotten that radiophones and visiplates work both ways. I saw and heard everything that went on in the televistor room while I was being towed along by that meteor! You’re a skunk, Mott, a dirty, yellow skunk, to hit an old man! Your uncle was one of the best men who ever held down a Dispatcher’s job, and he asked me to give you a chance—and I did. But you won’t get another! You’ll finish the next month and a half with the cook, as roustabout—at roustabout’s wages—and the cook has my sympathy. I’ll take your place as Dispatcher. And after that, you’ll get out of space—and stay out!”

Captain Cal Barker’s expression softened as he turned toward Steve Anders. “And here, boys,” he exclaimed, “is one of the finest meteor men who ever set foot on a space boat! I worked under him years ago, boys, when he was the champion of the Meteor Fleet. Maybe he’s not so young any more, but, by damn—he’s as good a man to-day as he ever was!”

The chorus of assent that arose was enough to warm any man’s heart. Old Steve Anders smiled happily.

As for the rest of the cruise, old Steve spent it with the meteor miners, towing in iron. And afterward—well, afterward he went back to his patiently waiting Sarah with enough money to last them the remainder of their lives.

When H. C. MacDonald heard about the experience of the Atlas, he ran his fingers through his shock of gray hair, and frowned thoughtfully. “Hmmm!” he murmured. “It may be tough to be old—when you’re useless. But I know one man who doesn’t fit that rule at all!”

Men come and go in the E. V. & M. —and are forgotten. But some are remembered—and old Steve Anders is one of them.

THE END

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PROBAK JUNIOR
The Fall of Mercury

By LESLIE F. STONE

Our readers will be glad to see a story by Leslie Stone. She was one of our early contributors and has won quite a reputation for imaginative writing. We shall hope to have more stories from her in the future, and if they are equal to this in merit we will be perfectly satisfied. There is endless imagination exercised in the narration.

CHAPTER I

"The Spot"

"It's a useless expenditure of time, Bruce; I'd advise against it. Mercury, as all our scientists agree, is unworthy of exploration. I don't see why you're so set on going. Of course, I'll tag along, but still I think it's a fool's errand." That was Morton Forrest's opinion when first I proposed a jaunt to the first planet of Sol. And in his own way I knew he was right.

Mercury, a barren, ugly world, was too hot on one side and too cold on the other for human comfort. What ores it possessed weren't worthy of exploitation—counting the difficulties of getting them out. And every scientist throughout the Federation had declared it a thoroughly useless waste, impossible to life, or anything, for that matter.

Call it a hunch, on my part, a plain American hunch of the old school, coupled with a dogged stubbornness for which I am famous among my friends, but to Mercury I had to go. It kept me awake nights thinking about it, wondering... I had to go for peace of mind. And good old Mort Forrest! Pals since boyhood, he wasn't the one to desert me now; we had been partners too long for that.

Nevertheless, the day I was seated in the control turret, hands upon the controls of the old, battered but still staunch ship Victory, headed for Mercury, I had my qualms. Our departure had caused a good laugh all down the line; even our standing as seasoned explorers stood us poorly. The newscasters gave us the merry ha-ha; and we had been laughed at so much we were glad when the trip was begun at last.

Janus Richter, the leading astronomer of Tellus, who had given us good advice in the past, had been against our going. He visited Forrest and me on the eve of our departure, begging us to call off our mad adventure, "fool's errand" was the least of his verbosity as he told us what he thought of our proposed trip. Furthermore, he warned us that the Venerian "Whirlpool" was acting up again. And now, to confirm his dire warnings, the Spacial Bureau on the island of Marta in the Red Sea of Venus was sending out its flashing danger signals.

The "whirlpool" or "spot," as some called it, is no more to-day, and for those unfamiliar with its history I will digress a moment to describe its peculiarities. It was an area in space lying
And the Victory was moving forward! Was this magic, or had the incline upon which the ship landed been too precipitous for its brakes?
in the vicinity of Venus that had been the cause of the deaths of so many early explorers; an area turning and twisting upon itself, sweeping to its heart any foreign body having the misfortune to come within its range. There were old hulks of ships, long dead, floating in its “pool,” and even fragments of small meteors! Nothing, it appeared, could withstand the terrific pull exerted by the Spot.

At the time of which I write astronomers of Venus had the whirlpool in control; that is in mathematical control, since they computed its mean position day by day and thus kept interplanetary shipping aware of the Spot’s location. For the Whirlpool was not stationary. It swung on an eccentric orbit between Venus and the sun, sometimes a million miles from Venus, sometimes forty or fifty millions of miles away. It had also been known to push forward between the orbits of Venus and Tellus, but that happened only twice in its known history.

However, knowledge of its position had not prevented an occasional flyer or freighter from becoming ensnared every once in a while. Its arms were long; appearing in unexpected channels.

Morton Forrest and I are explorers by profession and preference. “Pioneers” the newscasters see fit to call us, when we have come back with tales of odd, out-of-the-way places in the solar system. Many and varied are the adventures we have experienced together, but, to-day, we both agree that the greatest adventure of all is the one I am about to relate. Actually, we did little to rid the Federation of the monsters who would have made us a race of slaves; we did have the honor of being eye-witnesses to the greatest feat of all time, and that is something!

Although against the trip from the start, once having given his word to accompany me, Forrest was not one to back out when public opinion disapproved. His statements to the news-bureaus and to Richter put no blame on me, although rightly I deserved it. Privately he told me he had come “to see I didn’t get into trouble.”

No two men could be more differently constructed than Forrest and I. Forrest is a fat man, whereas I am as thin as a rail. In ordinary life people would have snickered at the incongruous picture we made when standing together. Forrest, short, rotund, scarcely five feet tall, appearing as broad as he was long, his round moon-face as fair and hairless as a babe’s, his dome-like head as innocent of hair as a billiard ball; while I, with my dark Indian face, my shock of unruly black hair that won’t stay put, was as lean as I was tall. Fun-loving cartoonists have caricatured us often enough, making Forrest rounder and shorter than in life, and me, taller and leaner than I am. Neither of us could explain what had brought us together in the first place, although we enjoyed the joke of our odd friendship as much as did the rest of the world.

We were exact opposites, not only physically but mentally as well; opposites in everything but our mutual love of exploration. And even in that we differed. Forrest’s interest was that of scientific achievement; mine, the pure joy of adventure, the love of new sights, new sounds, the thrill of treading virgin ground. Science baffled me. I could use machines, even repair them to a certain extent; but their mathematical precision, the reason they performed what they were supposed to do, escaped me. I knew the effect, but not the cause. Whereas Forrest deduced the cause from the effect.
Five hours after we had left Tellus behind Forrest was asleep in one of the bunks in our modest quarters, half a deck below the control turret. I was jotting down the figures coming to me from Marta, comparing them with those given us by Richter. I was surprised to find how the two accounts differed. The Spot was most certainly acting up to-night, since Richter’s report of the day previous showed a too apparent discrepancy. Slowly I spelled out the message from Marta:

ALL SHIPPING WARNED NOT TO MOVE WITHIN MILLION MILES OF WHIRLPOOL! ALL INDICATIONS SHOW AREA INCREASING IN SIZE MINUTELY, CAUSING INTENSE DISTURBANCE. BEWARE!!!

There was more, figures et cetera, but this was the gist of the message. I was thoughtful after receiving it. The Spot lay directly in our course. To avoid it I should have to plot an entirely new course, putting us hours behind our schedule. Mercury was in transit across the sun’s face at the present; and I had wanted to get there and back before it was too far along its way. Because once the planet was on the other side of the sun, our journey back would be lengthened by many hours.

I might have descended upon Venus to await the passing of the Spot, yet who could tell us how long the Whirlpool would continue to expand? Each time an intense disturbance had occurred in its history, several ships disappeared out of the void. But, on the other hand, now that I was started on the way, I wanted to be finished with it.

To be on the safe side I plotted a new course, giving the area a wide berth. Again and again I read the flashes from Marta, finding the figures becoming more erratic every moment. Twice I changed course; minutes and hours slipped by as Venus dropped behind us. Soon I could no longer get the flashes from Marta. I grew afraid. I even considered turning back, but Mercury’s call was stronger. I went on and on.

It was “noon” by the chronometers when Forrest awoke. He was preparing a bite to eat in our diminutive kitchenette, when suddenly I felt the machine give a sickening lurch. It commenced to rock beneath me. I threw the helm hard over. It shook under the strain, but the rocking persisted. With all my precautions the Spot had caught up with us! It seemed determined to encompass all space to-day. It would subside, I knew, in a few hours; but that would be too late. I was in for the battle of a lifetime.

More and more the ship’s motion became viciously irregular, until I was forced to fear the worst: that the whirlpool had moved altogether too swiftly for me!

I shot more and more power into the atomic motors. It was our force against that of the Spot, which was like a dozen planetary hurricanes in intensity. The rocking and twisting grew more noticeable. The ship groaned in its travail. I heard Forrest curse below as his coffee percolator spilled. A glance at the meters sent chills down my back. For several moments I tried not to believe it, but the truth forced itself upon me. We were no longer on the rim of the Pool, but in the full grip of it—tight-fast! The crazy motions of the meters showed the ship’s power next to useless.

White-faced I clung to my post, continuing to manipulate the levers, refusing the truth. Forrest came toward me, climbing the short flight of steps to the turret. I dared not look at him. A glance at the dials was enough to tell him what was happening. Fascinated, he stared at them.
With contrition I muttered through my teeth what a fool I had been, explaining how I had dared to risk his life and mine against all the warnings from Marta. “Don’t be a chump, Bruce,” he told me kindly. “I’d have done the same on a hunch. You remember that time on Neptune?” I shook my head. The chances on Neptune had been excellent to what we now faced, and we had pulled out of there. The odds and evens were both against us now. I said as much.

“We’ll fight, Warren, as we’ve always fought. Here, let me see what I can do . . .”

It was sheer bluff on his part. I knew by the quality of his voice that he saw the jig was up, but I refused to relinquish the controls. That was one thing I could do better than Forrest. I knew the feel of the Victory. If there was any chance to save us, I could use it.

“Have it your way, fella,” he agreed. “How ’bout some coffee? I saved some . . .” He added, “You know, I always wanted to explore the Spot.”

I could not help but smile. Forrest had the habitual sang-froid of the fat man; but he was honest in his resignation. He would fight to the last inch if he thought he had a chance, but he was a fatalist. If he felt his number was up, he preferred not to struggle. Often I have heard him remark about the pitcher that had gone to the well too many times, when a dramatic death of one of our friends was announced. Take it or leave it. That was his creed. But I was not ready to die. Not as long as there was breath in my body.

It did not faze me that no ship was ever known to survive the Spot. I might be the one to escape.

I felt the Victory take a grip, yet each time she failed again. Then suddenly, under my sensitive hands, I felt the controls stiffen to power once more. I did not hesitate, and for the next few minutes I worked as never before, playing upon the delicate instruments as lovingly as a virtuoso on his violin. Unbelieving, Forrest stared at the dials.

Minutes of aching suspense, minutes that hung on the pivot like hours. At last I knew we were safe! The impossible was accomplished! We were free, Free...

Still I dared not relax. Forrest came closer to peer fixedly at the meters, studying them as if seeing them for the first time. He spoke. “Great Neptune, Warren, you’ve done the impossible. We are the first to have pulled out of the Whirlpool!”

CHAPTER TWO

The Strange Cliff

I nodded. “Yes, Mort, we’re out of there, but don’t give me the credit. Something else did it, Mort, something—an outside force—I swear it!”

It was true. The force that had saved us had not come from the Victory; of that I was certain. The motors had frozen, refused to respond, and with all my work it had not been I that saved us. Something out there, some unguessed at power out of the Void, had given us a helping hand!

“Rubbish!” ejaculated the scientist. “Rubbish. We are too far from Venus for succor, even if they had the power. And, well, naturally there’s nothing on Mercury to have saved us!”

“Nevertheless something did it, Mort, I tell you. You know the Victory couldn’t have done what you saw done. You saw the force the Spot registered
upon our meters. Nothing on the planets can equal that. Something from the outside did save us. I'll stake my life on it. Otherwise, we'd still be in there, trapped, until food, water and oxygen gave out—unless the Victory rammed one of those derelicts I saw inside. There were fragments of two or three ships with which we all but collided."

"There's some reasonable explanation for it, Warren. We must have swept into a current of the pool that threw us on the rim, and the Victory did the rest. See, the motors are normal now."

He would not believe my explanation, even when I made a new discovery as the trip progressed. After leaving the Whirlpool, I noticed the Victory was using very little of her own power. This may have been due to some faulty recording instrument, strained in the fight with the Spot, as Forrest insisted was the case. I, on the other hand, felt differently. Delicate as the instruments were, nothing was wrong; they responded equally as well when I tried them, but the fact remained that something else was motivating the ship.

Tentatively I switched off most of the motors. And I found that we continued forward on the proper course. It was as if we rode an invisible beam that had us in leash, through which no outside power could penetrate; not even our own! And that power came from Mercury. I went so far as to attempt to change our course, only to find it impossible. Of this I said nothing, however. I did not want to be laughed at again.

**MERCURY** lay directly before us, a dark circle against the yellow glare of the sun which had grown larger and more splendid as we rushed upon it. Larger and larger grew the planet until its rough sides filled the sky, swung over us, then became a great inverted bowl into which we were dropping. Soon we were hurtling along at the same velocity as the planet, until we seemed stationary beside it. Then we fell toward it. And we moved on our own power. Once more the motors reacted in perfect accord.

Forrest had since gone to the tiny laboratory he maintained in the ship, and was busily testing Mercury's physical being, atmosphere, gravity-field, water-pressure, mass, et cetera, to correct and add to the data of the Astronomical Union of the Federation. He reported a thin atmosphere which was chiefly chlorine! His voice was filled with an "I told you so" inference. I merely shrugged my shoulders. I hardly expected more. I knew that Saturn, Jupiter, Uranus and Neptune all possessed an undue amount of chlorine in their atmosphere, but what did that matter? Uranus and Saturn were both known to contain sentient life; so that meant little to my theory about Mercury, even if it also contained that foul gas in its atmosphere.

I was intent upon bringing the Victory down in the portion of the globe where sunlight and starlight had a common meeting ground; which neither ruled. Here only could we hope to survive, even in our air-suits, for on the sun-side we would have been broiled, and on the night-side frozen, because of the extremes of temperature. In this twilighted sector I had reason to hope for a comparatively normal temperature; and if there was life on Mercury, here would be its home. At best it was not...
a complete haven, because of Mercury's irregularities of rotation, sometimes the sunlight encroached, sometimes the blackness of night.

I noticed that the sky had a sickly, greenish-yellow tint, due to the presence of the chlorine; but because of the atmosphere's tenuosity the color was vague, wraith-like. The sun was a great yellowish globe resting on the horizon; billious-yellow, rather. Its light but faintly illuminated this portion of the planet. Opposite the sun the blackness was tinged with yellow, the stars were dim and faded. Only high above were there any features of note. One was the blue-white light of Venus likewise yellowed—a lamp hung there to give light to this morose land. The other feature was Tellus, smaller, more distant, a golden luminary vying with Venus for beauty.

It was the landscape that held most of my attention. There was just light enough to make out the bleak, dirty-white terrain of broken, rough-pitted rock in which there was nothing to break the utter monotony of ugliness. Hills, valleys, plains were all tumbled together in a hodge-podge—colorless, uninviting. For the first time since our embarkment from New York I felt a let-down. After all, wasn’t I a fool to believe Mercury worth a call, when the whole system agreed the planet was nothing but waste land? Where was my hunch that Mercury held something of interest now? Forrest was right. The trip was useless. And the motors’ acting-up was just faulty recording. Surely no power from Mercury had pulled us out of the Pool. I shrugged my shoulders, ready to accept defeat.

Had Forrest said one word I might have turned about right then and headed for home, but he was silent. My pride back to the Victory, two hundred feet to make some show of interest. I sighted a spot more level and smoother than the surrounding territory, overshadowed by a grotesque cliff that rose out of the plain without apparent reason for its being there. With scarcely a jar I brought our brave little flyer down on Mercury, snapped fast all levers and climbed down from my seat. I stretched my arms and strolled to the nearest port. Forrest came to my side.

"Nice little world, eh? You don’t appear over-anxious to explore it, my fine buckaroo?"

Irritated though I was, I didn’t intend to show it. I forced a grin. "At least it’s the most quiet place I’ve ever seen. Ideal for sleeping!"

"That’s the best suggestion you’ve made since we left home. Only I intend to eat first." So spoke the fat man.

I WELCOMED food, realizing I had not eaten in ten hours. I would very much have liked to sleep, only appearances had to be maintained. I must show some interest in my find. I invited Forrest to accompany me on an exploration trip; but the landscape did not whet his scientific appetite. He declared he preferred my first suggestion, so I was left to climb into my airsuit alone. I took the precaution to add lead weights to my person, saw to it that my oxygen tank was charged and my heating units in good order. The difference in Mercury’s surface gravity was not felt in the Victory because of its electro-magnets. Outside, I found that by shuffling my feet as I walked I offset some of the change. Naturally enough I headed toward that strange towering cliff that had attracted me in the first place to this spot, fascinated by its unique situation in the comparatively level plain.

But the plane was not as level as I
at first had supposed. It had a tendency to fall away on the approach to the base; the peculiar lighting effect of this portion of the globe having hidden this fact from me before. And when I stood by the cliff I noticed that it really sat in a great bowl-like setting, its far edge almost on a level with the cliff's top, which was some three hundred feet high. The bluff was black, and seemed of different formation than that of the ground upon which it stood. It was of harder quality, less broken and pitted, though there was a long irregular crack across its face, as if some space-giant had flung a meteor against it. I found the fragments of the meteor lying about, fused to the ground; but the fragments did not appear large enough on the whole to have forced that crack. It was not until I had made my first astounding discovery that I found the heap of rubble that corresponded to the substance of the meteor lying some distance away. The neatness of the stack struck me as being too neat; as if the exploded pieces had been gathered together out of the way by thinking creatures!

More from habit than from curiosity I worked a few moments with hammer and chisel (part of my suit's equipment) and pared off a chip of the black stone of the cliff with some difficulty. The stuff looked more like concrete to me than any rock I had ever seen; but I wasn't scientist enough to catalogue it at a glance. That was the sort of thing Forrest loved. True, my mind was stirred by the thought of what that would mean if the stuff were really manufactured. My original hunch that I would find men or their equivalent on Mercury came back to me. However, a look about that grim-visaged land brought certainty that there was no longer life to be found. The cliff was age-old! With that conviction I turned back to the Victory, two hundred feet or so upon the slope of the depression.

I had only gone about twenty feet when the impulse to re-estimate the size of the cliff forced me to look back. It was then I saw something on its far side to call my attention. It was the glitter of something blue! And in a world devoid of color this was a phenomenon worthy of inspection. I retraced my steps. Imagine my wonder to find the bit of blue nothing less than a Venerian water-flask!

I turned my torch on it before I dared pick it up. It was a pretty little thing, enameled and embossed, the sort Venerian nobles always carry. A strange thing indeed to find on this bleak, dreary world. I stood there turning it over in my hand, trying to estimate how long it had been here. I turned it upside down and felt its weight change in my hand. I opened it. It was three-quarters full of water!

THE outside had not begun to weather; it looked new. But how had it come here? Had it been dropped accidentally from a space-ship, and on being attracted to Mercury, fallen by the cliff's foot? There was only a tiny dent on its enameled side, otherwise it was as fresh as if just from the shop. Surely it could not have dropped very far, no farther than from a man's pocket! Had its owner come to investigate the strange cliff as I had come? Who was he? Where was he now? Why had he dropped the flask? Was it merely an accident? Was his coming so recent that we had not heard of his trip to this wild land?

Then I saw the rubble heap lying against one side of the cliff. It extended well above the height of my head. The fragments were fused, and on one particularly large piece was a mark I was almost certain had come from a pick! Another fragment showed a smooth, flat
plane that was too unusual to be accidental. I bent over with my torch to examine it closer. I drew back in surprise. Only a heat ray could have made that cut. It had been sheared from another surface!

With that thought in mind I went back to the front of the cliff. And I was rewarded by finding the very spot from which that fragment had come. It had been a large rock which, hot from its transit through the Mercuran atmosphere, had forced its way partially into the ground, just below the cracked face of the cliff. And something had come later, when it had cooled. Unable to lift the entire rock out it had simply sheared its top off, leaving the ground level as before! A chill went through me at the thought. I even glanced about me warily; and there it was I noticed the great bowl-like depression in which the cliff stood. How even was that distant edge! Nature never worked with such precision; it was too unnaturally perfect. It was man-made—or what?

I was inclined to run back to the Victory. I needed Forrest's support; to hear him pooh-pooh my opinions. But wait! What is this? I had left the Victory a good quarter of a mile from the cliff, well up on the side of the artificial bowl, its nose facing the promontory. And I had locked the controls myself. But now it was no longer stationary. It was coming toward me!

WHAT madness was this? What had come over Forrest? Had something happened that he wanted me immediately? Why didn't the fellow slacken his speed? At the rate he was coming he would crash headlong into the cliff's face. Yet he was gaining speed as he came along.

For a moment I was paralyzed, unable to move, and on came the ship... A moment of tortured wonder, and I regained control of myself. I started in a run for the ship. Running was difficult on Mercury. I cannot remember that race now, but it was short with the Victory bearing down upon the cliff and me. I caught the half-open door of the lock (I had left it so on departing), and miraculously swung aboard. A minute and a half of waiting is necessary before the automatic controls inside permit the inner door of the lock to open, but I could not wait for the air in the lock to reach its full level. I let some bad air get into the ship, I had to get within. It took all my strength to wrench the door open. A single glance showed me Forrest. He was asleep in his bunk—as I had left him!

And the Victory was moving forward! Was this magic, or had the incline upon which the ship landed been too precipitous for its brakes? I was through the ship, up in the turret control. A glance showed that the motors were still, but I had realized their silence on entering the ship. I dropped my hand to the brake of the caterpillar treads praying I was soon enough. A touch on the pneumatic lever was ordinarily sufficient to bring the ship to a dead stop, but we still moved, we still moved! And the cliff loomed large before my eyes. Less than a half dozen feet separated the Victory's nose from the cliff's front. A scream rose in my throat as I pulled frantically upon the brakes, but my cry was never uttered; instead with mouth agape I forgot everything as I stared...

CHAPTER III
Into the Cliff!

The crash I expected never came—simply because there was nothing into which to crash! The cliff was still there, a high forbidding menace in
that livid white world, but its face was no longer blank. It was a yawning cavern, and the cracked expanse that was evidently a door was gone. I did not know if it had slid upwards, downwards, or to the side. Later we learned about that.

Now the _Victory_, as if expertly guided, was gliding smoothly into the exposed cavern, through its opening on a smooth surface. Then it came to a full halt on the black floor. Bereft of thought I could only stare out of the turret ports. A backward glance revealed the fact that the doorway through which we had come was closed again. Nor was there anything to show it was a door. It was merely a rough, cracked continuation of the wall of which it was a part. We were in a great subterranean chamber with a sloping floor. No wonder the cliff had stood unique against the plane since it was no less than a ponderous doorway into the inner world of Mercury, a man-made entrance, time-worn and weather-beaten; but still serviceable. Yet was it man-made? That was still to be discovered.

A soft gray light tinged with yellow from what source I could not determine diffused itself evenly upon everything, on the smooth black walls, the floor, the flyer and on a dozen strangely familiar shapes some distance from the _Victory_. Space-ships! I recognized a Martian Patrol with its fantastic figurehead representing the three demons that are the triad of Martian worship. There was a diminutive flyer from diminutive Ceres, a small though efficient cargo boat, such as those that ply between Venus and Tellus, and a pleasure yacht from Venus. The other ships lay beyond these first, so that I could not make out their design. But the pleasure boat. I knew it. I had made a trip on it no less than four months ago! It was the pleasure yacht of Tica Burno, a wealthy noble of Venus. And a month since, the yacht had been reported missing; believed to be a victim of the Whirlpool! Yet here it was on Mercury. We also had been caught by the Whirlpool: and here we were safe on Mercury. Safe?

A H, yes, that blue flask. Had Tica Burno gone to explore the cliff even as I had? Had he, too, been startled to see his ship lunging for the bleak side of the black cliff? Where had he gone? Was I to find him alive? Somewhere in the “innards” of Mercury?

With a suddeness that almost startled me out of myself a voice barked at my back. It was the waking tones of Morton Forrest, who had so calmly been sleeping through this awful ordeal. “Oh ho!” he was yawning, “I’ve never slept better in my life. My vote for Mercury as the best place for a thoroughly successful night’s sleep!”

“Well,” I observed in an attempt to be jocose in the face of everything, “I hope a night’s sleep is the worst Mercury has to offer us. I feel as if I . . .” My voice broke; I was unable to go on.

Forrest was up. “Why, Bruce, old man, you sound melancholy. Don’t tell me this place strikes one so. Well, a day’s exploration’ll fix you up; then we’ll be heading for home. What a laugh we’ll get . . .”

“I’m afraid the laugh’s on us, Mort. Come here . . .” I said weakly.

He was aroused at last. Padding over the floor in his bare feet he came to the turret. Wordless he stared at the strange chamber enfolding us, looking to me for explanation, then back to the scene around us. In as few words as possible I told him all that had taken place. As I talked a new brightness came into his round blue eyes; slowly a smile spread over his face. “He smote me heavily on the shoulder.

“Bruce Warren! You’ve done it. The
discovery of the century. Life on Mercury. A new race. You've... why..."

I shook my head. "Rather looks as if they've discovered us, Mort. That force that brought us out of the Spot is the same force that dragged the Victory into this cave; and I don't like it, not at all!"

"Bosh! You need some sleep. Next you'll be saying 'They mean us no good.' Why, man, they're waiting for our coming. They're killing the fatted calf right now I'll wager!"

"Yeah? Well, suppose we're not the first? What then? Evidently you've not looked at those things over there!" And I pointed at the ships huddled together a hundred yards from us, their empty portholes staring at us like the eyes of a dead fish.

Forrest was really startled for the first time. His first glance about had not taken into account those mute, deserted ships. A frown etched itself across his serene brow. "I'll get dressed and into my air-suit. Better look about a bit," he agreed drily.

I had not removed my outer air-suit, had merely shut off the air-purifiers and opened the front of my helmet on entering the Victory. Forrest dressed quicker than ever before. But for some reason I was not over-anxious to leave the Victory. Perhaps it was merely another hunch, still I dared not show myself the coward in front of my phlegmatic, fat friend. We were into this thing up to the hilt, whatever it was, and I, afraid already!

I followed Forrest from the lock slowly, stopping to close the door behind me carefully, more to delay our inspection, than to make sure of the ship's safety. Forrest was ahead of me a pace or two, headed for Ticia Burno's yacht; but we never reached our destination. Something came to halt us in our tracks. The same giant hand that had drawn us from the Spot, had dragged the Victory into the cavern. It was invisible, but its bonds were as convincing as ropes, more so, as suddenly we found ourselves gripped solidly, incapable of movement either backwards or forward; not so much as a finger! Only our eyes and respiratory organs were alive. We were prisoners.

I was caught in a ludicrous position with one foot slightly raised, knee bent, about to take a forward step, and in that posture I remained albeit I tried to fight the thing binding me. Unable to move a muscle I sought to break the will that held me, reasoning it was a strong mind that had me in thrall. It was far stronger than I. I was powerless to do anything but use my eyes. My vision was reduced to that which lay directly before me. I could just manage to see Forrest held in the same powerful grip. Then I saw the floor at our feet opening...

The floor was smooth, of stone or perhaps some sort of time-resisting metal. There was no crack in its whole expanse, as if it had been laid in a single piece; yet a pit opened to us, a circular hole dropping into depths far below. As for the portion of the floor where the pit was now it was gone; dissolved into nothingness...

Something odd happened as we stared wonderingly at this phenomenon. It was the light about us—it was flowing toward the pit, illuminating it!

We waited, expecting to see our hosts appear from the hole, but in that we were disappointed. Instead, the force that held us bound was gently propelling us, nay carrying us, forward. We were to be dashed to the bottom of that seemingly bottomless pit! Not even given the comfort of being able to scream, we were shoved closer to the brink of the
chasm—which seemed to grow deeper as we neared it!

Now our feet were close to the pit, on its very edge, and still we continued moving forward. Now we were over it, dangling, expecting the end, wondering that it did not come. But we were not to die—yet. The pit was coming up to meet us, engulfing us, gently, slowly. It was as if we were cushioned on a pillow of air wafting us softly to a haven somewhere below. And with us went the light, flowing from the chamber above, making the curved, black walls of the well visible about us; flowing like water, lighting the darkness as it came to meet us. There was just enough clearance on either side for our shoulders. Had we been free we could have touched both walls by moving them but a few inches.

I was first, but knew that Forrest was above me. His feet dangled within line of my eyes. The fall seemed endless. In a point of time it scarcely took more than three minutes in all, but it was the longest three minutes I have ever known. Still everything has an end, even space, they say. The shaft suddenly widened, was no more. Instead we were in a room into which the light had flowed ahead of us. We came to a halt on a second black floor. The room was a square, bare cell, well-lighted but bare of furnishings, bare of everything, even of an entrance; for as soon as our feet came in contact with the floor the shaft overhead closed as quietly as it had opened to us in the chamber far above. Nor was there the finest seam line to tell where it had been!

WITH the closing of the shaft the paralysis that had gripped us was removed; we were free to inspect our cell, meagre as it was. Silence was upon us, a silence that aggravated. Forrest broke it. “Nice reception, this. Lord, I thought we'd fall and break our necks in that shaft. I'm getting too old for such shenanigans, Bruce. I hope your friends don't have many more surprises like that for us! Wonder what sort of creatures they are . . . ?

“Creatures of super-intelligence, Bruce,” he went on without giving me time to answer. “Do you know what the opening of the shaft means? Nothing less than fourth-dimensional translation! It couldn't be anything else. They simply switch matter ahead in Time, re-materialize it, or else just wait for Time to catch up with it. And that descent—better than an elevator, eh? I reckon you were right after all, old man. It was they who saved us from the maelstrom. You didn't imagine it as I thought you had.”

“Well, all I can say is I hope they will show up soon. I don't like this suspense of waiting, and I don't feel that we're alone. Someone—or thing is spying on us!” I had that feeling of eyes at my back, and though I persisted in turning about several times I was not surprised to find the room unoccupied except for ourselves.

“Hum-huh—I feel that, too,” commented Forrest. “I suppose they have some way of examining us here, ticketing us for future reference. But think of it, man. What a world this must be with gravity controlled, a complete supremacy over the physical and inorganic. It's . . . why it's too big for words!”

“Leave out the words, but speaking of the physical, Mort, I could eat a cow right now. Wonder what food is in their language? Hello, there, Hello! How 'bout some service.” I knew I was acting the fool, but I needed an outlet for my emotions. I wasn't like Forrest. I couldn't sum up the mysterious and get scientific equations for answers. My only answer now was the reverbera-
tion of my voice against the walls of our cell.

Forrest grinned at me. "Don't be so dynamic, Bruce. Everything in its place. Be patient, fellow. All things come to him who waits."

"Bah!" I cried, but I was as curious and as excited as Forrest, only I'm a man of action, and the mystery of the unknown sets my nerves on edge.

Whatever the reason for our detention, our patience was at last rewarded. Before us on one wall, where there had been no doorway before, there now opened to our eyes a circular opening. A corridor dropped away before us, inclining downward. We hesitated a moment before entering, and to hasten us came a slight push of indeterminate source at our backs that impelled us into the corridor. With us flowed the light that had been our companion, again lighting our way. Three hundred yards ahead the corridor ended abruptly, and we found ourselves on the edge of a vast chamber wherein we discovered our first Mercurians.

CHAPTER IV

Prisoners

The room had the appearance of a laboratory with its vast array of various types of apparatus and queer machines. It was possibly a thousand feet in length and almost as wide with a ceiling fifty feet above. The most outstanding objects in the great chamber were the long rows of tremendous pear-shaped tubes, in which purple fires were at play. Not all the tubes, of which there were easily several hundred, were of the same height, but ranged from twenty to almost fifty feet tall. On the floor, apparently, without plan were set machines, some huge things reaching above our heads, some so tiny that their features were scarcely visible to us. And, in the midst of these giants of science, stood the small group of Mercurians who were our hosts, midgets dwarfed in the immensity of the room and of the machines.

There were five of them. Midgets, and strange though their appearance, strange the dead-white of their complexions, the square set of their bodies, their single eye and hunched double-shoulders carrying two pair of arms to our one pair, it was not these features that were so astounding to Forrest and myself. It was their unusual size. The people of Ceres are termed Lilliputians by their larger neighbors since they are but three feet high as the general run; but they were giants beside the men of Mercury! Not one of the five was more than a foot high, and several were a few inches under. These mites our captors? Incredible!

With the first shock of seeing full-grown beings so tiny we gazed curiously upon them. That they were of the genus Homo was evident at first glance; at least, they were bipeds. I have already mentioned the fact of their plurality of arms; their single eye. The body was thick, almost drum-like while their legs were round and straight without shapeliness, their feet seemed toless, clubbed. Certainly they were the most graceless creatures it had ever been our fortune to meet; and to add to their ungracefulness they wore a sleeveless, straight-line dress hanging awkwardly to the knee. The dead white hue of their skin added much to their repulsiveness, and no other word could fit them better than hideous. The head was long and oval; the eye, white like the rest of them, had only the black pupil to relieve the monotony of the face that seemed dull, expressionless to us. Yet there was intelligence in those high foreheads, the delicate mold of high-bridged noses, the sensitive out-
line of each feature that bespoke sensibilities developed to their highest degree. On the other hand, there was nothing about them to invite friendship. They had, to use a slang expression, a "deadpan."

As we studied the Mercurians they in turn gave us the "once-over"; and there was no telling by their faces what they thought of us. But I don't imagine their opinion was any more complimentary than our own. One of their number took upon himself the duty of spokesman for the group. And the language he spoke was the Esperanto of the Federation, delivered in a harsh voice, high and squeaky. Since he spoke without any show of emotion his tones were necessarily lifeless and monotonous; sing-songy. Forrest and I had to incline our heads to hear him clearly.

"Beings of Tellus," he began, "know that without the Forces of the inner world of the First Planet you would even now be suffocating within the confines of the Venerian Whirlpool. Our force succored you, and brought you here to safety. We ask no gratitude of you: we wish only that as your savours we have property right to your bodies and being to do with you as we see fit. We ask no allegiance, for we appreciate the fact that you would not give it. We tell you this only that you should know an attempt to escape our world will bring your immediate death. You understand?"

Understand? We understood only too well. And one can picture how flabbergasted we were at this strange speech. Was ever there a stranger welcome from one people to another? Certainly this was not the sort of reception to which we had looked forward. The very tone of that cold voice magnified the meaning of the words a thousand times. We were prisoners and were not to expect largess from our captors. Glancing about the strange laboratory I realized that we were in the tightest spot of our career. Escape? Through stone walls?

Forrest was first to regain his faculties and reproachfully addressed the tiny creature before us. "We duly appreciate your timely intervention in our behalf, Men of Mercury, but perhaps you misunderstand our motives in attempting to reach your world. In the first place we were merely explorers, adventuring for our own enjoyment, and in behalf of the Federation. You speak the code of our Federation; therefore, you must know something of its workings. We come in the spirit of true friendship, to offer to your world, if you will accept it, the fellowship of the Federation of the outer worlds, and to the . . ."

The little man would not allow Forrest to complete what he wished to say, but made a deprecatory gesture as if what Forrest told him was not news; was, in fact, hardly more than the prattle of a child.

"What you say is of no interest here," he observed. "We of Mercury, as you deign to call our world, are well acquainted with the precepts of the Federation. Your mind as well as the machinations of your Federation are as open books to us. We have studied the peoples of the outer worlds, watched them struggle into being from savagery to their present state of quasi-civilization. We have seen the establishment of interplanetary commerce among you. In fact, your meagre accomplishments affords us interest of a sort—amusement, rather—but we are content that your Federation believe Mercury a dead world, useless to explore or exploit. That is until the Time comes to change it all. We know the puny powers invested in your worlds, your lust for more worlds to conquer; but we prefer
our own seclusion! Were it our desire to wipe your millions off your world's face we could do so; but we have other plans—we—but, there, enough of this. You . . ."

I had listened to this tirade long enough. Every word the little beast had uttered stung me to the quick. "Say," I cried belligerently, "'enough of this' is right. What the devil are you getting at? I don't like your innuendoes or your face, you runt, you. We're free citizens of the Federation, and unless you release us immediately we'll . . ."

An ugly smile slit the face of the Mercurian. "Just what do you intend to do, Bruce Warren?"

Yes, what could we do? My anger subsided like a pricked rubber bladder. I think it was the sound of my name on the lips of the midget that broke the back of my rage. It made me realize what we were up against. Beings with more than ordinary intelligence; beings who read a fellow's mind by looking at him. The Whirlpool had taken us, and unless a star-gazer had actually seen us dragged from the Spot by our captors, our world would believe us gone. No doubt we were already reported among the dead. I grew ashamed of my outburst, suddenly feeling as if I hardly cared what was to happen to us. Let our captors do their worst!

With what followed it is surprising that the Mercurians had seen fit to acquaint us with our fate. I think it was merely their own arrogance, their desire to crow over men five and six times their own height, that had prompted them into giving us that audience. But they were through with us now. They had had their fun.

Paying us no more attention, our "host" turned to one of his compatriots and spoke a few words in their own language. In answer the tiny man strode over to a desk so small as to have escaped my notice before. It looked like a child's play-block, only there were a number of small knobs and dials on its top. The Mercurian depressed a number of knobs and, what ho! Forrest and I were once more in the grip of the powers that had seized us on our strange entrance to this strange world. Again we were powerless to make a motion of our own.

No, I was wrong. We could move our legs, but only at the will of the power behind our backs, that propelled us across the wide room toward a circular opening facing us. It was the mouth of a short corridor, and at its end was a great, circular, bronze door that opened to our approach. I felt more than a fool to find myself expertly pushed about by people so tiny as to appear ludicrous in my eyes. But they proved their dominance over me, and I learned the bitter truth that size means naught when the brain is great.

Through the bronze door we found ourselves faced with its twin on the opposite side of a small square chamber completely bare. It seemed odd we should find rooms and doors built to our height in this world of midgets. There was no means with which to gage the age of the door, for their material may have been new that very day or age-old. It showed neither age nor an exacting newness. The first door had closed on our backs, but the second door had not moved. Now through our air-suit ear-phones we could hear the hiss of air in the chamber about us, as in an air-lock; then the second door before us flew open.

CHAPTER V
Our Prison

We looked into a chamber of noble proportions, oval in shape, with walls painted a soft gray.
Two round doors broke the walls on either side, hung with colored draperies. On the floor were strewn rugs of various designs in different colors, and about the room were set chairs, tables, divans, all the appurtenances of physical comfort in many sizes and shapes, as if built to suit people of various physical proportions.

It was not the room, however, that drew our attention first-off, but the people occupying it. There were people of our own worlds—representing five of the planets, or rather two major planets, a planetoid and two of the moons of Jupiter. I counted three Venerians at a glance, blue-skinned and red-eyed, identical with us in stature and form; five ungainly leather-skinned, heavy-minded, monstrously tall, bladder-lunged, spindle-legged Martians; two Erosian dwarfs, purple-skinned with great round heads, small thick legs and narrow chests. Then there was a single Ioian, gray-skinned with yellow eyes, as tall and slender as myself, with a face as beautiful as a god’s; and lastly there were two golden Ganymedians, with their odd lop-sided faces and roly-poly round bodies. We were the only representatives of our own home planet.

For the most part the company was seated in various chairs built to their own measurements, in groups or alone; and never have I seen a more apathetic crew. One would have thought our entrance would have attracted some attention, and though I saw eyes turn our way, there was no show of interest or welcome for us. Only one of the Venerians brightened for a moment at the sight of us. He even started to rise, thought better of it and dropped back to his former position, with hands clasped loosely in his lap. But his eyes did not leave my face. I started at the sight of him, thinking for a moment to have recognized my old friend, Tica. But this man was grizzled and old, whereas Tica was younger than I, and I thought my eagerness to find my friend had deceived me. Yet it was he, as things turned out; but how changed!

On our entrance the heavy door behind us clanged shut and Forrest and I realized we had “arrived.” “Not a very happy gathering,” commented Forrest drily.

“What can be the matter with them?” Forrest shrugged his shoulders, but added, “Isn’t that your friend, Tica Burno?” bringing my attention back to the Venerian who had first taken my eye. I surveyed him again. Now the poor fellow was rising to his feet, extending a trembling hand toward me. It was Tica! I crossed to his side.

“Tica, Tica Burno, it is you, isn’t it?” I cried.

The man essayed a smile that wavered over his face; he started to speak, only to be halted midway by a sudden pealing of a bell, that sounded within the chamber. We looked up for the reason of the ringing, and I saw that the bronze door, through which we had come, was opening to admit one of the diminutive Mercurians. He was clothed in the ugly dress of his kind; his entire body was enveloped from head to toe in an odd suit that seemed as flexible as silk and having the transparency of glass.

For the first time it dawned on me that in this chamber was terrestrial atmosphere, or rather air having the same constituents of the atmospheres of our own worlds (Venus, Tellus, Mars and the moons of both Jupiter and Saturn have atmospheres differing but slightly in their percentage of oxygen; not so much difference as to make it noticeable to the many races of the Federation;) whereas the inner world of Mercury contained the same air such as we had discovered on the outer surface. This was the reason for the air-lock.
through which we had been propelled. We were the only ones among the prisoners wearing air-suits, which the new entrant likewise wore.

THE Mercurian took but a few steps into the room, and in the common language of the Federation called out, “Come with me. Geirur Ta, Vieru Ta, Jaci Sor and Cadam Ol. Your time has come.” In answer to the summons the four named prisoners, who were all Martians, detached themselves from their single, unnamed companion. They went through one of the two tapestry-hung doorways we had noted on first entering this prison, and were gone a moment. When they returned they were wearing air-suits. Grouping themselves behind the Mercurians, they followed him through the bronze door. It was the last we saw of them.

From the moment of the Mercurian’s entry the expression on the faces around us showed no more change than our own entrance had produced. They were like so many automatons living merely at the will of their masters. Their lackluster eyes and listless movements bespoke complete resignation. Only the man, who had been Tica Burno, exhibited any animation. His broken mind had awakened at the sight of my familiar face. With the clanking of the heavy door behind the Martians he said suddenly:

“They go, but do they return?”

“Where do they go, Tica Burno?” I wanted to know.

“Where but to the laboratories...” His strange tones filled his words with pregnant meaning. A knife-like fear clutched me. I was remembering the Mercurian’s dire warning: “We as your saviors have property right to your bodies, to do with them as we see fit!” Was this what he had meant? Were we to be victims for the laboratory knife for the erudition of our midget captors?

“To the laboratories for what?” I demanded of the remains of Tica Burno. He shrugged shrunken shoulders. “For what? But to see what we are made of! I have been there, as have all of us. Some return, some never return. We are put in baths; hot rods are laid upon our skins; they probe us; they dissect us; and they suffocate us. For what? Do scientists tell the cavires, the guinea-pigs of Venus, for what?”

There was no answer to that. I was afraid. “Tica, Tica Burno,” I cried, “what have they done with you?”

“Huh? Why do you worry me so?” The quavering voice was suddenly querulous, puzzled. I looked into a blank face. What had they done to Tica Burno to make him—this?

Forrest spoke. I had forgotten him. “The strain is too much for the poor thing, Bruce. May as well leave him alone. See how they have tortured him.” He pointed to tiny scars all over the arms and throat of the victim. A newly healed welt showed above one ear. It was terrible.

“Come, we may as well explore the rest of this place. I’d like to get this heavy suit off.” Forrest drew me into the doorway through which the Martians had gone for their air-suits; and we found ourselves in a narrow corridor, wherein were set a dozen or more tapestried doors. Peering into one we saw a bedchamber furnished with two long, comfortable couches, a table, chairs, a mirror and beyond a small wash-room. Each room was identical. Five were occupied, for on hooks behind the doors hung air-suits, and a meagre array of personal belongings were on the tables. Two of the rooms had two air-suits apiece, the third and fourth and fifth only one. A sixth room seemed deserted; and we decided to “move in.”

After removing our heavy suits and
helmets we turned our pockets out, to find what they might contain for our comfort. Each had our light-torches, hammers and chisels naturally. Forrest had a collapsible razor, two packages of cigarettes, three cigars, matches, an automatic lighter, a fountain pen and some clean handkerchiefs. I had my pipe, a meager supply of tobacco, matches, and a bar of chocolate. I also had a knife, a nail-clip, a bunch of keys, a comb and a soiled handkerchief. Not a very expensive wardrobe to be sure.

Suddenly we looked at each other and laughed. It seemed funny that we were so concerned with our personal comfort at such a time, but that is man’s habit. Condemned men wish to die with a full stomach. We went so far as to try out the beds to determine the degree of comfort they afforded. They were soft and inviting, but neither of us felt like sleeping. Forrest, the ever-fastidious elected to shave; but I was satisfied with merely washing up. We were both hungry, yet we decided against the chocolate. An idiosyncrasy, I suppose, to retain the best thing for the fast. Instead of eating we both lighted up.

We had just finished out ablutions when, for the second time since our arrival, the bell in the main chamber rang. Rushing to see what it announced we found dinner served in the main room. A table stood in the center of the floor set with a variety of steaming food. The assortment included the diets of all the races represented here. There was even fresh fruit. All the company were already seated, but on either side of Tica Burno were vacant chairs. He was more rational now than before. He spoke to me almost like old times, and pointed out which food he thought I would find most appetizing.

I asked him how all these various foods were brought to Mercury, but he arched his brows in surprise. Where else but from the laboratories?

Yet, when I asked more about that, he seemed to lose the thread of our discourse. I tried to pump him about his arrival on Mercury, but again I ran into a blank wall. His eyes stared at me incomprehendingly. Forrest shook his head sadly, but he had guessed what the poor fellow meant about the food coming from the laboratories. More than likely they had only to inspect the larders of the space-ships from which we had come, and build up the food artificially from chemicals. “It’s been done at home, so why not here?” he observed.

I was dining on a slice of chicken, and it was difficult to believe that in had come from the laboratory and not off the bird.

With the meal ended we got up from the table and saw the floor open to receive it. When it had disappeared completely from view the floor closed in again as before. But for our surroundings and the circumstances that had brought us here I might have felt quite content with myself, but a glance around at our companions spoiled the effect of a good meal. I saw myself growing despondent and resigned as they, unless something should happen. I eyed the heavy bronze door of our prison speculatively, but guessed at the impossibility of moving that without an explosive. We were prisoners pure and simple.

I walked from one group to another of our fellow prisoners, trying to find one whose attention I could divert, but for all my trouble I received in return only blank stares. They just refused to be lifted out of their lethargy. Were their experiences in the laboratories so horrible as to have erased all memory, all self-consciousness?

I went back to Forrest who had stayed
beside Tica Burno. The Venerian was mumbling something about sleep, and turning his back upon us, entered the doorway opposite the one opening into our chamber. Others were also rising and going through the doors, and Forrest and I realized the meaning of their concerted exit as slowly the light in the chamber began to fade away from around us, flowing from walls and ceiling, lingering more brightly around the exits by which our fellows were disappearing. We understood. It was an invitation to retire. The day of Mercury was at end.

Following suit we retired to our room. We were no sooner undressed and abed when the light about us began to die away. I tried to see where it went, but there was simply a gradual wasting away until it was dark. I composed myself for sleep, not expecting to really close an eye, and I was surprised to find that I slept through the “night,” for I did not awaken until the room was bright with light again. Forrest was already up.

Habit made us shave; then together we went into the common room to find “breakfast” served as before on the table in the middle of the chamber. The food was scarcely different than what we had the night before. There was chicken again, the same vegetables, fruit and coffee for us. I could never stomach the gruels eaten by the Martians while the fish food of the Venerians is too reptilish for my taste. The Erosians seemed to subsist entirely on a hard yellow bread-cake wholly indigestible to other races. However, like us, the Ionians and Ganymedian enjoyed a diversified diet of meat, vegetable and fruit diet.

Several hours after the table was removed the same Mercurian in his transparent air-suit of the previous night appeared after the ringing of the warning bell. This time he called forth the three Venerians, including Tica Burno, and the remaining Martian. Of the thirteen prisoners, whom we had found on entering the chamber, there were left only five beside ourselves. None of the four of the previous day had returned, although later a single Venerian came through the heavy door. He shook as from ague and blubbered softly, paying no attention to his fellows. Once more we dined, and still the food was the same; then the light faded and we knew another day was gone.

The next day Forrest was among those called! With him went the remaining Venerian, the pair of Erosians and a single Ganymedian, leaving me alone with the Ionian and remaining Ganymedian. You can picture my feelings when Forrest went to get his air-suit. I went with him trying to insist that he should not go, that somehow the pair of us would fight off all of Mercury if necessary, but Forrest would not hear of such a thing. He pointed out what small chance we had for rebellion, and ended with the hope that perhaps he would be the one to return in a few hours. Even then I was ready to accompany him, but when we returned to the main chamber I found that an invisible net had been thrown about me and I was forced to stand by while my friend passed through the bronze door and out of my sight—perhaps forever.

With the closing of the door my bonds released me and sadly I went back to our room to take off my air-suit once more. I flung myself on my bed, but was too restless to stay there. I approached the Ionian, tried to make him speak, to tell me of something that went on in the laboratories. A glimmer of understanding sprang to his eyes, then faded again. It was the same with the Ganymedian. There was nothing to
take my mind off our plight; I could only picture what horrors Forrest must be facing at that moment.

The hours passed, somehow, although I was close to a nervous breakdown; then the heavy door opened and Forrest in company with the Ganymedian returned!

His face was white, and his hands trembling somewhat, but he told me they had not tortured him. That is not physically; but he had been put in a cabinet and forced to empty his mind to his captors. Evidently they were not quite so adept as reading the mind as they had tried to make us believe they were. They wanted to know everything worth knowing about earth. In fact, they had sought to drain his mind of all it held.

"These little devils are planning something that does not bode well for the Federation, Bruce," he told me thoughtfully. "I can't say exactly what it is, but, while I was in that cabinet, I caught faint telepathic messages that they did not know were escaping them; and those messages told me that our worlds have much to fear from them. If only we could get out of here. This world is a beehive of industry, and that industry is being directed to harm our worlds. . . ."

"Why should not the two of us escape when they open the door again. If we stand on either side of the door and . . ."

Forrest laughed at the foolhardiness of my plan. "We couldn't make two steps before they would apprehend us. Only a miracle can save us, Bruce."

We were both silent as we ate our evening meal; then we were retiring and the third day of our incarceration passed. The next day the Ionian and Ganymedians were removed from our prison, and we were left alone, certain that the fifth day would see our end. It was that night there came a break in the sameness of our existence. A new arrival.

CHAPTER VI

The Giant

We had just finished our dinner when the ringing of the bell to announce the opening of the heavy outer door startled us. It had never opened at this hour before. We turned expectantly in its direction, thinking our turn had come; but we were unprepared for the apparition that appeared. Unlike ourselves, who had been brought in by means of a compulsory force, the new arrival came under his own "steam" so to speak, bending down so that he could enter the doorway which was ten feet high, high enough to admit the tallest Martian. Yet this creature was even taller. When he had had appeared, his head touched the high ceiling fifteen feet from the floor, and his body bent slightly at the shoulders. I felt Forrest clutch my arm. The same thought came to me even as he voiced it.

"It's a Saturnian!"

The planet Saturn is a mystery in itself to the Federation. Forrest and I were not the only explorers who have sought to contact it in the past without success. Though the inhabitants were far from savages they did not welcome visitors. Any ship to land upon the planet was duly invited to be gone as quickly as it had come. It appeared that the Saturnians were merely indifferent to their fellow-beings, realizing themselves incapable of meeting the people of the Federation on common ground. How different they were, we did not know even now as we faced the giant creature before us.

Fifteen and a half feet tall he stood, a great hulk of a man, as black as coal. And I was suddenly struck by his similarity to our captors, the Mercurians, for
like them he had double shoulders supporting two pairs of arms, a single eye and a barrel-like body. His thick legs reminded me instantly of an elephant’s leg with the round pad-like feet and four toes stuck close to the heavy foot. But there the resemblance to the little men of Mercury ceased. He was as black as they were white, and his single eye, which was overlarge, was green in color, set in a face that might have been termed handsome, were it of normal size. His brow was lofty, his cheek bones high, his mouth wide though pleasant, showing its tendency to smile easily, though actually it was toothless. His head was devoid of hair, exposing the broad well-shaped cranium.

He was but lightly clad in a pair of short trunks that had broad bands crossing the chest and ending at the waist band in the rear. But again, like the Mercurian, who each day appeared to call forth his allotment of laboratory specimens, he was completely enclosed in a flexible, transparent envelope. Only I noticed the material was heavier than worn by the Mercurian, it seemed to blur the Saturnian’s figure as if he were under water, or as if the stuff was of triple thickness. I recalled now that the thin, low-grade atmosphere of Saturn was almost a counterpart of Mercury’s atmosphere. Was there some connection between the little men of Mercury and the giants of Saturn?

As we studied him the giant in turn stared at his new cell-mates, his face mobile, his form motionless against the wall. No, not motionless, for he swayed as if scarcely able to keep his feet, and it was only by effort that he maintained his upright position. I saw one monstrous hand clung to the top of the door panel to support him, and he had braced two more hands against the wall behind him. Then his swaying became more evident. He was growing weaker. His green eye closed for a moment, and he was toppling forward!

It was a horrible sight to see the giant form fall. Like a tree up-rooted he came down. The room resounded to the crash. Luckily Forrest and I dodged in time as we saw it coming. Then we rushed to the giant’s side. He was face downward, his four arms a-sprawl in wild disorder about him, one heavy leg doubled under his thick torso. We had the intention of rolling him over if we could, to make him more comfortable. Forrest was first to lay a hand upon him. The flexible envelope was icy cold. The fat man drew back his hand as if stung.

“That suit. We must get it off him. God, it’s cold!” We did not know the truth then, that the suit merely transferred the cold from the body of its wearer. I ran to our chamber to get my knife and the gauntlets of my outer-air suit. For ten minutes we worked, but the knife could not pierce the strange material enclosing the giant. It did not even scratch it!

We stared in wonder at the strange body. There was no sign of life in it. We looked to see if the helmet of his suit was misted with his breath, and discovered there was no sign whatsoever of respiration! We concluded that his fall had killed him, if he had not been dead before his fall!

Staring at the body we stood there wondering about him. Why had the Mercurians pushed him in here when they knew he was dying? And why was he here?

There was a waning of the light around us. Night had come. Habit is strong. I wanted to retire, but Forrest wanted me to stay. “Bring my torch, will you, Bruce?” he asked of me, and I went for the required article, bringing my own as well. Forrest, as I have already,
said, is first of all a man of science, and even though death faced him to-morrow or to-night he was deeply disappointed that the giant had died before he could have a single word with him. So many things might have been explained about Saturn.

I came back to find my friend squatting in the obscurity, now that the light was gone, staring at the Saturnian with chin cupped in a hand. It was not entirely dark, however. With the going of the light the Saturnian glowed like phosphorus, emitting a bluish light that colored his features weirdly, making him something of a nightmare.

Forrest took the torch, without a word, and for nothing better to do I drew a chair up to join in his meditations whatever they might be. I felt a chill coming from the prone form of the giant, and shivered slightly. Forrest was talking now, more to himself than to me. "I can't understand it. A living creature, and yet he does not breathe. Still he lives—he lives."

I cried out in wonder. "Living... You mean...?"

The fat man turned eyes upon me as if seeing me for the first time. He nodded his head. "He lives. He moved slightly when you were gone; and groaned..."

"But he doesn't breathe! We made sure of that!"

"Do you forget those extra-terrestrial beings we discovered in the atmosphere of Pluto? They lived, but they did not breathe. Their physical structure was necessarily different of course. They weren't blood and flesh exactly. We breathe to purify our blood with oxygen, plant-life breathes in carbon-dioxide, the Mercurians live on chlorine. I never thought though than any branch of Homo Sapiens could live without air. It's against—but wait, he moved again..."
He needed light as we needed air!

CHAPTER VII

A Strange History

A FEW moments of the light application, and the Saturnian showed improvement. He was able to sit up comfortably. I had picked up my torch, motioning that he was to use that too, but he waved it away. He spoke to us, not in the code now, but our own tongue, English.

“Chen-Chak and all of Raxta owe you a monstrous debt. You have saved my life, my new friends, for without your aid I, the deathless, would have been dead shortly!”

Forrest waived aside his gratitude. “We did only that which we would have done for anyone in the same predicament. Who are you?” he demanded, but he amended that to: “What are you?”

“Have I not already spoken?” boomed the Saturnian. “Chen-Chak of Raxta, I am, of the world you name Saturn.”

“I know, I know, but what are you? Ordinary men do not die from the lack of light!”

“It is a long story, the story of my race, but it is true. I live on light. I am deathless as long as there is light, only this suit into which they thrust me refracts the rays beneficial to my being!”

“What?” breathed Forrest in wonder. Impressed though I was by this intelligence I wanted to know of things more tangible. “How is it?” I asked, “that you speak our tongue, you who have repeatedly refused intercourse with the peoples of the Federation?”

“My people are thoroughly familiar with all the tongues of the system, Bruce Warren. Long years have we watched your world develop, your people evolve
from savagery to their present-day civil-
ization. In the past we have made phsy-
cal contact with yours and other worlds, but of late we prefer to study and watch you through our machines. I should say that we of Raxta are far more familiar with all the planets of this system than you are to-day. We have ... 

Here I interrupted him. "You mean you have been to Tellus in the past?" 

"Often. And I believe there are legends among you that refer to our rare visits. There was one Raxtau, a renegade deserving of death, who escaped us to Tellus. He took up abode on an island where he was discovered by one of your renowned sailors of the past. The sailor put the giant's eye out with a pointed wooden bar. Later we came in the night and carried him off."

"Cyclops, the one-eyed giant of the Odyssey! And it wasn't a myth after all?"

"No, and there were others, but no matter now. Some other time you may question me about those ..."

I was incredulous, unable to believe that this giant spoke the truth; but now I was more interested in the implication of his last words. "Some other time. But tomorrow we die, or rather we go to the laboratories ..."

Chen-Chak shook his head slowly at that. "No more of your peoples will go to the laboratories of the Raxge (Mer-
curians), Bruce Warren!"

"You mean you can save our lives?"

"Ay, but it is your race I shall save, not you alone. Had I not lived, another would have come in my place. For the time has arrived when the Raxtau must teach the Raxgeu, who are the masters of the system. They would break their sacred word: but it must not be so. They caught me in their trap unawares; overpowered me before I could rally, and made me their prisoner. Thereupon, they attempted to murder me, but no poison they can contrive would kill me. Yet, had they only known it, they all but accomplished their purpose when they put me in this damnable suit, excluding me from the light ..."

"How did you come from Saturn—or Raxta? How did the Mercurians trap you?"

"My ship is outside. They captured me as they do the most amateur tyro, as they captured you—in their trap—what you call the Venerian Whirlpool!"

"The Whirlpool! You mean it is nothing less than a Mercurian trap, that they control it?" cried Forrest.

"Ay, and not only that, they brought it into being. But that is elementary sci-
ence, my friends, on Saturn we—but no difference. You seem shocked by the news?" He added with his easy faculty of reading what lay in our minds. "Have you no idea why you were brought here? Why the whirlpool was produced in the first place?"

"But the spot has always been—er—at least since we have taken to space-
travel," protested Forrest.

"Ay," agreed the giant laconically.

Forrest hesitated, then spoke again. "I begin to understand. They bring us here to pry into our anatomies, to dis-
cover how we differ structurally from themselves to learn about our worlds, but still ..."

"Ay. You saw only the few in the laboratories, not the tens of billions in-
habiting this small planet. They have sapped the vitality of their world; their population has swollen to uncontrollable proportions. And the time has come when they must go afield to survive! Hence the spider's web to catch unwary specimens of life from the various worlds. In this manner they discover the conditions they are to face, for un-
like my race they know little of the
system; they must have first-hand in-
formation. The only way to obtain it
is through the medium of the laboratory.

“It is in the power of this people to
wipe all life from your worlds in one
blow; but they do not wish to do that.
They desire to preserve the best for their
slaves. They hope to discover by what
means they can live on your worlds with-
out changing nature’s balance, also to
enslave, not kill. It would have been pos-
sible for them to proceed immediately to
Venus, to experiment with conditions
there, but to do this would only warn
the rest of the worlds, but they think
thus to keep us of Raxta uninformed of
their movements; only they give us
little credit for our all-seeing powers!”

I listened to the long speech of the
Saturnian in growing wonder. I thought
I gathered its gist, but it seemed too
impossible, too horrible to be true. For-
rest was the first to cry against it.

“Solar conquest! That’s impossible.
Something must be done. We’ve got to
get out of here—we must warn the
Federation. This is diabolical!”

“Diabolical, true. But what would
your Federation do against the Mercur-
ians? Your puny weapons against the
Mercurians would be as a pin-prick to a
mastodon. Long ere you could warn
your Federation your enemy would have
dealt with them. Nay, one does not
send an infant to do a man’s work!”

“You?”

“Ay, I, Chen-Chak of Raxta. For
that I am here.”

I stared at him unbelievingly. One
man against the billions of Mercury,
even though he a giant and they mid-
gets? Impossible.

Chen-Chak read my thoughts. “You
are wrong. It is not as you believe, one
man against billions, but the science of
one world against the science of another.

Have no qualms whatever on that score.”

“Then,” cried I impatiently, “let us
start immediately. Why delay?”

“I must await the return of the light
to this chamber. My vitality is far too
low at present for me to move, and this
thin beam is too weak . . . .”

I wanted to sneer. I felt that the
man was playing with us. “They bested
you once, why can’t they do it again?”

He was patient with me. “I was
taken unawares. I came on a mission of
peace. I came to offer the Mercurians
another world in place of this. I was
to offer them Neptune. There is the
room they need for their race, unin-
habited. The atmosphere is like that of
this planet. It needs only a sun, but
Raxta is ready to supply that emer-
gency. They must accept my offer, else
Raxta will deal with them immediately,
and not to their liking! Have no qualms,
my friend.”

It was all a gigantic puzzle. Behind
Chen-Chak’s queer words I felt that
great issues were at stake. He spoke of
the Mercurians too familiarly, as if they
had clashed in the past, as if they were
under the thrall of his planet. And yet,
physically they were the same, different
only in stature, form, color.

“What connection lies between the
Mercurians and your race, Chen-Chak,”
I asked of him.

“Ay, it is a long, long tale, Bruce
Warren.”

“But it will be a while yet before the
light comes back here. You have spoken
of the ages in which your people
watched ours grow from savagery. The
Mercurians mentioned the same thing to
us. What lies behind all these puzzles?”

“The story of Raxta and Raxge in-
volves history long before your people
had a beginning. Your world was still
too warm for life, for any kind of life.
But as you say, I have the time, so I will tell it to you."

Holding the light beam trained on his face the Saturnian or Raxtau, as he called himself, settled more comfortably on the floor beside us, and began his tale.

* * *

"This history," he said, "begins with a small wandering star called Rax. Its family consisted simply of two planets, Raxge and Raxta. The star appeared to belong to no one group, traveled the void of itself, and it was a small star, smaller even than the yellow star you call Sol. The first of the two planets, Raxge lay quite close to the surface of the star, some sixty millions of miles near, while the further star Raxta lay another forty millions of miles away; but Raxta was populated whereas Raxge was barren.

"On Raxta were two races, a race of pale skinned people colored like yourselves, but as tall as I. The other race was a dark skinned race, almost black, physically comparable to the white race. Both were single-eyed and four-armed. And for ages the two peoples lived side by side, sometimes warring, sometimes peaceable, but for the most part maintaining a sort of armed truce. The white race counted itself superior to the black race. They were arrogant and quarrelsome. The black race was more good-humored, peaceable; but they did not take well to the airs of their neighbors. They were both evolved from the same lowly species; they occupied equal ground and they were both highly intelligent. They were equals, mentally and physically.

"Raxta was a largish world, surely large enough to foster both races, but it was not written so. The white race coveted all the world for themselves; they wanted to enslave their fellows who in turn chafed under the repeated taunts of the white race, and so wars came. Sometimes commerce existed between the two, sometimes it was at a standstill; and both peoples made a show of getting along without the others. The riches of the world seemed equally divided among them.

"Yet both races were prolific, soon it seemed the world would become over-populated. There came a time when there was not land enough to grow sufficient food. Naturally each race felt the other had the more land, and there was war again. This brought about a balance since hundreds of thousands were killed, with neither side winning or losing, and for a while there was peace once more. But this did not last and again they went to war, and yet again. Now after thousands of generations, not only were the lands used up, but the natural resources of the planet were dwindling. You would have thought the two races would capitulate now, join forces and regulate their population; look forward to a golden-age of scientific development. This the white race refused to do. They went on multiplying as before, using their remaining resources extravagantly, disregarding the future.

"The black race, on the other hand, was more sagacious. They limited the number of their offspring and devoted themselves to overcoming their handicap for future races. They had long been experimenting with synthetic foods; for they realized their farm-lands were thoroughly exhausted, and it would take many decades to revive the soil, whereas the use of chemical food would permit the population to spread over the farm-lands.

"Many generations passed and the race improved itself and prospered. With the food problem out of
the way they turned to other sciences, particularly those of ray-forces, for they already foresaw the time when they should need to drive the white race off the globe. Before the enemy, they jealously watched what was happening, and considered themselves cheated in some way; that new resources had been discovered in which they wanted their share. Another war took place, and this time the dark race won unconditionally.

They may have enslaved the enemy, but that was not their way; they despised anything dealing with the usurpation of another's inborn right. They simply proved their superiority and left the others severely alone. They had now discovered a means of space-travel. An expedition left for Raxge, and found it a resourceful world.

“The expedition returned and preparations for colonizing the new planet were in order, but therein the white race struck. They had managed to steal the plans of the space-ships of their neighbors, and as soon as the first expedition returned a dozen of their newly equipped ships set out for the inner world, and took Raxge in the name of their race. Forestalled the black race considered revenge, but one of their wise men countered with a better plan. He proposed giving the white race the whole of Raxge! Raxge was smaller than Raxta, but large enough to contain all the other race, whereas Raxta should belong to the dark race in its entirety. To them it was not a barren world, its mineral resources were sufficient to sustain the people for untold generations, and thus would they be free of the everlasting aggression of the white race. Some, naturally, cried against such a measure, but they were in the minority, and at last Raxge was ceded to the enemy. Loud was the rejoicing when that race gave up all right to the old world and departed as one man for their own planet. And there was peace.”

“In fact, as time went on the Raxgeu, which was the white race, were all but forgotten by the black race, the Raxtau. The Raxtau were intent upon developing their sciences to the nth degree. They spread over all their vast territory, and all lived in harmony. Their food came from the earth, air and water; their clothing was of the simplest design; their wants few.

“Now they discovered that whereas there had been a great amount of waste material in the bulky, natural foods of their planet, their chemical foods also contained much waste. They sought to lessen that percentage to a greater degree. They had been talking their synthetic food internally, but it was found in time that by emersing the body in a chemical bath the body was better fed through the pores of the skin; thus the food supply attacked each muscle and organ directly. It was far better than the old indirect process of taking food through the mouth and along the long, alimentary, digestive tract. Of a result there was no appreciable wastage at all. Naturally this meant a complete atrophy of the digestive organs, but this was to the advantage of the body, simplifying the body’s normal actions; thereupon lessening the chance of disease. It also brought about a lengthening of the life-span, since there was less to waste away, and the cells were renewed at their source.

“Along with these developments came the development of ray-forces. The first rays discovered on Raxta were the deadly, death-dealing rays, but with war at an end other uses were discovered for them. Lifting forces, gravity-repelling forces and various other forces were discovered. Radioactive ores led to the first discoveries of these energies, now it was found
that there were many forces coming to the planet from the void itself, from the myriad stars. New experiments were taking place all the time, and one day a young obscure scientist found the means of solidifying a ray of light!

"That discovery had only been made when a new situation thrust itself upon the black Raxtau. The years had robbed the planet of its life. Only the dead flesh and bones remained; the mineral deposits were giving out, water was drying up, the very atmosphere was thinning. The granary was nigh exhausted. They had need of mineral, water and air that they might live, and there was nothing to replenish them. They were faced with the prospect of a dying, barren planet.

"One solution to the problem lay in the planet of the white Raxge; but it would mean a terrible devastating war before it could be conquered while in the end they would find themselves again faced with a problem like to their own, when that planet also became exhausted. Man needs food for fuel, air for his automatic stoker, water as a lubricant and replenisher. Release him from these outside requirements, and he would be deathless! Yet how? Not even a machine can toil forever; it needs replacements of its parts, it needs fuel, no matter of how low a grade it is. What fuel is there in the universe that is infinite, unchanging? Air? But no. Air is possessed in only small quantities by each small world, and could easily be dissipated. Water? No, again. Water is simply a by-product. What then is endless? What else but light itself?

"Light alone is everlasting, infinite, as long as a single star remains in the heavens, as long as there is one spark capable of being ignited. Light it must be. Light would be the food of the black Raxtau?"

CHAPTER XIII

War of Suns

"I t is impossible to go into detail as to how this was accomplished. Many years were consumed before man turned his body into a light-absorbing entity, but proof of his success lies in the fact that the Raxtau exists to-day. Gradually the body of the Raxtau was remolded, as once it had been remolded to accept chemical food through the pores. Thousands, hundreds of thousands, and even millions died ere the process was perfected; it was slow, painful, heart-breaking. And it was a great day when a small group of men found it possible to survive without recourse to ordinary food. Still he was yet incomplete. He still used water, he still breathed air.

"The human body consists of practically 98 parts of water, and a good third of his body is necessary to the consumption of air. More thousands died before the constituents of the body could be changed, dehydrated; even a wet-cell electrical battery requires water; more changes were necessary. And there came the day when man was freed of his bondage to water. Still he breathed air; he was not yet complete. Thereupon the fault with the new system was discovered. Man was not receiving full benefit of the light-waves coming to him out of space, the air-blanket of the world was refracting certain rays that made it impossible to do without fuel. Those who had gone through the test were now dying like flies because of a certain lack. One thing must be done. Raxta's atmosphere must be reduced, if not completely dispersed. But before this could be done a radical change of the blood content of the body had to be made . . ."

There was a pause.
THE FALL OF MERCURY

An exclamation escaped my lips at this point of the story. This accounted for the fact that we had been unable to see Chen-Chak breathe. His respiratory organs had been dispensed with! The giant caught my thought and nodded affirmation, continuing his extraordinary tale.

"It was accomplished in time, and the man of Raxta became a perfect entity, freed from slavery, supported by the sustenance of his mundane sphere. The impossible was accomplished. The new man was the most perfect of man-made creations, a human machine incapable of running down. He could not die; for in giving himself life he rid himself of death!

Deathless, and yet not deathless, for life was his, only as long as he had light. Each creature was sufficient unto himself, needing neither food, air or water. Only light, and as long as there were great stars in the firmament to fill his reservoir, he was indeed deathless. If he so desired he might leave the surface of his world, exist in space itself, unprotected and without physical discomfiture. He was one with space itself!"

"But Chen-Chak, you were near death a few hours ago," I interposed.

He nodded. "True, but that is merely proof of what I have already told you. The force-suit into which my captors shoved me was such that it refracted all light from my body. It is possible for me to live twenty hours without an application of light, but those twenty hours of incarceration were nearly up when you came to my rescue. The Mercurians had placed me in the force envelope to protect themselves against the chill of my body which has the temperature of space itself."

"That bluish light emitted by your body, Chen-Chak? What is that?" Forrest wished to know.

"The giant smiled. "It is what you have already surmised, Morton Forrest, perspiration. Not perspiration as you know it, since there is no water in my system. It is fluorescent particles exuded by the body when under duress, just as you perspire moisture when the body is likewise uncomfortable."

"Gad! How long it must have taken your people to reorganize the physical as you have done! A deathless race! What marvels of science a man can perform when he is a timeless entity. It is beyond comprehension."

Forrest might rave about such things, but a shudder fled down my spine at the thought of infinite life. I was appalled by it. I did not want to think along those lines.

"There are still a few hours until the light comes back, Mort," I put in. "Why not let Chen-Chak finish his story. I want to know how Mercury and Saturn became part of our solar system, for I take it that Raxge and Raxta are no less than these two worlds."

Chen-Chak nodded his head. "You are right, so they are."

"Yes, do go on with your story," agreed Forrest.

The man of light only paused to exchange Forrest’s light torch for mine, for the other was almost completely used up, while mine was still fresh. He swept its beam once or twice along the length of his body, then settled himself anew with the light on his face as he spoke.

"Now while all these changes had been taking place on Raxta other events were taking place around us. For one thing Rax was getting old. Never a large star its life-period was comparatively short. It had shrunk in size and was slipping down the scale to old age. Each succeeding generation had seen less light and heat being received on the planet, but so concentrated had efforts
been upon the metamorphosis of the race, every other science had suffered; in fact, man had all but forgotten everything outside his own need. And among the neglected sciences was astronomy; it had been long years since man had last considered the telescope.

"There was consternation on Raxta when it was learned that our star was waning. With everything else failing was the sun also to fail? But what of it? Were there not thousands of stars to which they might migrate? Thereupon men sought the various astronomical observatories left on the planet. They were to find a star in which the black Raxtau might hope to take up life anew.

"The science of space-navigation had likewise been neglected, and the people were astounded to find how inadequate their old ships were now. It would be impossible to make the journey to a new star in them; hence men were immediately plunged into the task of designing ships to use the latest principle known to the Raxtau. Word was received from the observatories. Word of dire purport!

"I have spoken of the fact that Rax was in transit. All stars, naturally, are constantly in motion; some follow the great star streams of the Milky Way; some move in small groups together; more rarely a runaway star travels the void alone. And Rax was such a star. A runaway. What had started it on its solitary migration can never be told, but the fact remained, that Rax was going alone whither it wished. Had our small sun been disdained by its fellows? Had it been goaded into seeking another more hospitable neighborhood? None could answer the puzzle.

"But it was not the aloneness of our star that appalled our people so; it was the fact that Rax was headed directly for a star with which it was believed it should indubitably collide, a star that was the brightest object in our firmament, a great yellow star, almost twice the size of Rax, although itself comparatively small in regard to the other stars around. Hourly that star grew larger and larger!

"And computation of the velocity of Rax and that of the danger star advised us that in a very short passage of time the stars must clash!

"For a moment panic seized Raxta. Death faced us, and we were unprepared. There was not sufficient time to build enough ships to contain all our race, even those of the old antiquated type were inadequate. But there was a solution. Raxta must free itself of Rax, and run for shelter to one of the other stars not too distant.

"FEVERISHLY men toiled to turn the big unwieldy planet into a space-ship, and Raxta was larger in those days than it is to-day. It was a race against time as those in the observatories reported hourly the progress Rax made toward the new star. At last Raxta was ready to depart her age-old berth. He back was dotted with huge propulsion stations. At a signal the power was switched on. The world held its breath. A moment, a minute, an hour—nothing happened. Two, three hours, and still Raxta remained stationary. She could not move!

"We had forgotten Raxge, but Raxge had not forgotten Raxta. During the millenniums the Raxgau had developed their sciences even as we. Somewhat backward though they were they had made progress with forces like our own. Possibly they had spies among us to report what discoveries we had made, and so were able to duplicate them. They may have developed them without our conscious aid, but it was to be proven their knowledge of the forces hardly equalled our own. Yet like us
they realized almost too late that Rax was carrying us all to ruin. Unable to duplicate our machines for throwing Raxta out of its orbit, the Raxgau decided, nevertheless that they were not to be left behind. We were to drag their planet along with our own in the migration to another star! But something had gone wrong.

"They had failed to evolve the directional-beam control for their force-rays, and instead of their beams falling only upon Raxta they had spread outward in a great fan shape, one side of which fell upon Rax!"

"Thus they defeated their purpose. Raxta may have managed to carry Raxge with it to another star, but with the force-rays lying against the side of Rax, they acted as a powerful leash on both our worlds. Of a consequence we were more securely locked than ever before to our parent. And all the while Rax was falling toward the point in space where the two stars were to meet.

"A group of Raxtau engineers were hurriedly dispatched to Raxge to find some means of releasing us. They found the controls of the Raxge ray horribly jammed, for in their excitement the inept scientists of that planet had made a worse mess of them than ever. Even with the controls blasted away the rays held. Our engineers returned with the bitter news that the only possibility left to us was to blast Raxge out of being; and that may not even save us in time!"

"Now from the observatories came fresh reports. Our astronomers had not been infallible in their calculations, else something had occurred to turn Rax aside, and instead of colliding with the new star it should pass at an angle of a billion or more miles. Stars have been known to pass each other many times in the past. These passings raise great tidal waves upon the respective stars, and, naturally, a like effect is felt upon their planetary systems if they happen to possess a family. And we feared the consequences upon Raxta of such a passing. Could our planet survive the buffeting?"

"It was decided to carry out our original plan of moving Raxta out of its orbit to another star. We were already rigging up great machines to blast us free of Rax and Raxge when Rax came into conjunction with the danger star. Had the new star, Sol, seen and coveted us? Rax's proximity was raising terrific tides upon that sun; it boiled in maniacal temper over the passing of the stranger. It would have preferred to devour it. It gnashed its teeth, and writhed its mighty tentacles in chagrin. Rax was not without feelings; the two stars indulged in a soundless, wordless battle, tormenting each other in pantomime across the sea of space. The ferment of the pair was awful to behold as each hating the other flung all their forces at each other in an insane race, as both considered they were being wronged, the native star despising the stranger, poor runaway Rax, upset by the fact that he could not even find peace here. Rax appeared intent upon tearing himself asunder. And it was his rage that produced the iron that struck at the shackles holding Raxge and Raxta to his girdle. We were freed . . .

"I cannot begin to describe all that titanic struggle of the passing stars. Both stars seemed intent upon burying themselves in one glorious flame. Sol, in his youth had his fresh fires to draw upon, old Rax had to dig into his vitals for his ammunition. Raxge and Raxta were buffeted about as upon an angry sea; and had not our engineers remained cool and collected we would never have lived to repeat the tale. Like fishermen playing with a monster, they took advantage of each hull, edging closer and
closer to the star of our destiny, for it was apparent that Sol was to be our salvation after all.

"Rax might be torn in two, but his children were to survive him, for to Raxta clung poor terrified Raxge, depending upon us to draw her out of her dilemma.

"Details of how Sol accepted the additions to his family circle are unnecessary. Apparently he hated us as much as he despised Rax, for he tried to suck us into his maw; but we were strong, and we felt our way carefully along the rough path. As it was we could not save all our planet, part of it was pared away, and for many years to come our globe was lopsided. Time, however, repairs all wounds and since then the world had righted itself. However, Raxge was torn from our side. We saw it plunging toward the new sun. Though we had contemplated blasting our enemy to nothingness to save ourselves, now, that we were refugees together, our engineers sought to prevent that fall.

"It is impossible to say with certainty that our forces actually saved Raxge, or whether Sol relented on the eve of its fall into the fiery furnace, but, like us, Raxge was destined for a new place in the new system. Months passed before we could ascertain if we were safe, and not until then did we begin to glance about and discover who our neighbors were. How many worlds Sol originally possessed is only to be guessed at, but by our count there were now nine counting Raxge and Raxta. There was also that area lying beyond Mars where thousands of fragments follow the path of what had once been another world which was disrupted by our coming. These you call asteroids—you know nearly a thousand of them. And around our globe drifted hundreds of particles that may have been the remains of another planet, whose place we had taken. You know them as the rings of Saturn, for, in fear that they might bring damage to us, our scientists carefully fitted them into the pattern that is now part and parcel of our world.

"We found further our world had captured a number of small planets of Sol which now have their orbits as satellites of Saturn. But our greatest surprise of all came when we found, at a distance of no more than 400,000,000 miles, none other than our erstwhile sun Rax! Sol had won that immortal battle, and though he had failed to engulf Rax, he had captured him. That small sun had likewise taken residence in the system. The light had burned the heart out of Rax, and though still in a gaseous state it could no longer be likened to a sun. In settling to its new orbit it had commanded a number of small planets henceforth to be its moons. You call that ex-sun, Jupiter!

"Oddly enough Rax was but half its original size, and perhaps that accounted for the two largish worlds lying athwart Raxta, which your ancients named Uranus and Neptune. Both were in the gaseous state, slightly incandescent, and the mass of these three worlds combined to make up the total mass of Rax. Uranus we found possessed four Satellites and Neptune but one, the natural solar planets they have evidently displaced.

"A survey of all the natural worlds of Sol showed us that they were all of small size, none exceeding a diameter of 9,000 miles. That alone in itself is proof that Neptune, Uranus, Jupiter, as well as Raxge (Mercury) and Raxta (Saturn) were intruders. Incidentally later we found that Raxge had been robbed of more than half its bulk with
which Sol had appeased his hunger after his great battle.

"Raxta was well situated. The new sun was young, and not too far from greater suns, younger still, to which we might go when our new luminary burned itself out. We went about the business of reestablishing our world, for most of our cities were in ruin. As soon as we were settled, expeditions were sent to visit our neighbors. Some of the planets were a shambles, life gone. On Mars man was still low in the scale of evolutionary development. On Tellus man had not yet made his appearance; on Venus life had not left the waters as yet. And Raxge was in a bad way. Its drop through space had deranged its axis, halted its rotation. Because of the terrific heat of the near-by sun and the bitter cold of night the surface was impossible to the Raxgeu. The atmosphere was almost gone, oceans and lakes were dried up, and the few millions, that had survived the conflagration, were huddled below the surface in natural caves, living on mosses and lichens, and a few fresh water springs.

"Our hearts went out to our erstwhile enemies, and we of Raxta saw it was our task to save the pitiful remnants of that once great, arrogant race. We went about the business of making their caves more habitable, of enlarging them, establishing laboratories to regulate the atmosphere and temperature. For generations we watched over them, improving their lot; were as a father to them, and all enmity was gone.

"From the first level they dug deeper into their planet until the time came when the entire world was honeycombed and people filled level after level. Time came when they were overflowing the small globe. They looked with longing to their nearest neighbors, but migration was out of the question. They could not live in the air of these worlds. And Jupiter, Uranus and Neptune were still far too new. They considered other tactics.

"You remember I said that once the Raxgeu were as tall as the Raxtau. Their solution to their problem came in the reduction of the body. If they could halve their stature, two men could dwell in the space formerly given to one. A smaller body, likewise, would not consume as much food, nor need as much cloth to cover it. So, as the Raxtau had done before them, they set about to revolutionize their bodies. The result you see in these midgets of today. Not satisfied with cutting their height in two, they continued the practice until they were no more than a foot in height.

"Now they declared themselves free of Raxta. Their old natures reasserted themselves. They ordered our scientists from their world, declared they had no more need of our friendship; that they were content to be sufficient unto themselves. We agreed to leave them alone, only we foresaw what was to come about; that in the future they would again outgrow their world; that they would seek new territories, and our scientists left them with the warning that it was not their right to take that which did not belong to them. That should they make an attack on their sister-worlds we, the Raxtau, their superiors, would make them answer to ourselves. Live and let live.

"And that time has come when their world is overpopulated again. Food grows ever scarcer; they have gutted the planet of all its minerals and ores, and, regardless of the fact that the atmospheres of their fellow worlds differ from their own, they have decided to migrate. Again they covet which is not theirs to obtain and possess. Their nature does not permit them to share;
they wish complete subjugation. Raxta has offered them Uranus and Neptune. There we can construct artificial suns for their heat and light, but their very natures rebel against accepting anything from our race. They want only to conquer, to but take what they will. But it is not written so. Raxta has spoken!"

* * * *

With that the Saturnian, or Raxtau, as he preferred to call himself, ended his strange tale. And was there ever a stranger tale to be heard by the ears of man? I wanted to doubt the veracity of the story-teller, but who was I to question him?

He spoke again in answer to my unspoken thought. "It is the prerogative of every being to doubt what he hears, but consider, my friend. Of all the peoples of this system only the Mercurians and Saturnians resemble each other in physical structure, whereas all other men of these worlds are like unto yourself, except for some small changes due to the different climatic and geographical conditions. Take samples of the atmospheres of Jupiter, Saturn, Uranus and Neptune, and you find them identical. Consider the apparent age of these named planets against the comparative youthfulness of the remaining worlds. Consider how greatly the satellites of the last four named planets differ from the structure of the worlds themselves.

"Our studies on Raxta have revealed the fact that the family of each star consists of the same constituents. Nature is consistent. She uses the materials nearest at hand; and thus, you will discover, that each star-system is closely related in structure, in atmosphere and in its elementary combinations. When a foreign body is discovered among others, you may be certain it is unrelated, a new-comer! But look . . .

"The light returns—I live again!"

CHAPTER IX

The Strange Ship

CHEN-CHAK referred to the fact that day was breaking in the inner world of Mercury. The light was flowing back into our chamber. It was well, for the flash-light the Saturnian held before his face all this while was used up. I found myself stiff and sore from holding one position too long. Forrest was hunched in his chair. Slowly he turned his head in our direction, blinking his eyes as if just awakening. I knew differently; he was just returning to reality.

The Saturnian still crouched on the floor, resting on an elbow, but with the return of the light he started to stretch his huge body, and I watched, fascinated, as he raised his four mighty arms above his head, arcing his monstrous back to relieve stiffened muscles. I asked a question of him suddenly.

"Chen-Chak, how old are you?"

He turned his single eye upon me, a smile wreathing his broad mouth.

"Age? What is age? Time is endless. Its account is only for the young. I can tell you this much, however. I was born that day our scientists perfected the present-day man of Raxta. Not a single babe has been born on our world since. We are incapable of breeding in our own likeness. Nature quails at that!"

I was past being incredulous. "And how long is that?"

He lifted huge shoulders in eloquent gesture. "Have I not said that Time is not an entity to be reckoned with? I have used such terms as ages, millenniums and years, so your minds might grasp something of the antiquity of our race, but we of Raxta keep no time . . ."
“Ay. All of it!”
I shuddered as I had shuddered before when Forrest had made reference to such longevity. Life for me was wrapped up in three-score and ten years. I had no wish for longer life. Age to me meant the old awaiting death’s release. “How heavy life must be on your shoulders,” I said with misplaced sympathy.

“Life heavy?” Chen-Chak was startled out of himself, his voice boomed and reverberated throughout the room. “Heavy—with only a tithe of the problems of Life solved?” His voice softened. “Ah, Knowledge is Life, and, as long as there are still more secrets to wrest from Nature, Life is fruitful.”

With that he carefully reared himself on his feet, trying out the height of the room with his head, but he was unable to stand completely erect. “The moment is come; we can dally no longer,” he averred. “The Raxgeu will be up to more deviltries this day. You will follow. Come . . .”

I was wondering how we were to get through those two heavy bronze doors, but Chen-Chak solved that problem quickly. He brought from a hidden pocket a small round globe with a slight indentation on one side. He placed it at the end of one finger, and there it stayed apparently unsupported!

“The Raxgeu did not bother to disarm me; they thought it impossible for me to reach my pockets with that diabolical suit of theirs on me!” He laughed softly, then glanced at Forrest and me. “Your helmets. Put them on.” We obeyed, and he turned his strange weapon upon the door before us.

There was no sound, nothing to show anything was happening, but happen it did. The door was simply no more. It was washed out, dissolved in less than the twinkling of an eye.

Chen-Chak noticed our open-mouthed astonishment. Thereupon he turned his ball around on his finger. Instantly the door was back in place, as whole and secure as before. In terse words he explained the process. He had simply translated the door into the fourth dimension; ahead in Time, in other words. He could bring it back or allow it to wait for Time to catch up with it.

A SECOND time he turned the globe, and again the door disappeared, only he did not bother to return it to its place. Then, motioning us back from the rush of air that would enter with its dissolution, he drove the second door into nothingness. A miniature hurricane of air from the other side rushed into the lock and prison. It swirled about us, tearing at our suits like a maniac, but subsided as quickly as it had come.

Chen-Chak was already squirming his way through the double entrance without regard for the tearing wind, and we found him waiting for us in the short corridor leading to the main laboratory of the Mercurians. He was bent half-double because of the low ceiling. We did not enter the laboratory immediately, but paused to reconnoiter. There were half a dozen small Mercurians in the laboratory seated at tiny desks situated here and there before the banks of tubes in which lambent fires boiled. In a low whisper Chen-Chak explained that these machines generated all the power of Mercury that was redistributed throughout the globe by smaller stations that simply picked up the load where it was needed most. It was the new day, and the Mercurians were awaiting a new shift to take their places. Several yawned, and looked to a small circular entrance in one wall between two great tubes, where their relief would appear. As we stood in the corridor one little, ugly fellow who was
nearest us was seen to shiver as if a cold draft were upon his back. He looked about uneasily, and turning his eyes in our direction sensed our presence. I saw Chen-Chak had already lifted his little globe. A moment later the tiny man disappeared forthwith.

Then, raising his weapon again, the Saturnian picked off two more without the others' knowledge. Two more went, blotted out like smoke, but now Chen-Chak had stepped into the chamber. The one remaining midget threw up his hands and started for the door I already mentioned. His treble scream came to us as he likewise was snuffed out.

Ordinarily I am not one to countenance wanton murder without a qualm, but I knew this was just retribution for the hurts that Tica Burno and all his kind had suffered at the hands of these fiends, but Chen-Chak put me right immediately. "They are not dead," he averred; "within half an hour of your time they will be returned, unaware of what has taken place. They must wait for Time to catch up with them!"

I nodded understandingly. He was not one to kill without just cause. The men of Saturn had too great a respect for life to take it unnecessarily, and now that I consider what came to pass I realize with what sorrow Chen-Chak did what he was called upon to do by the Mercurians themselves. It is different when one's own life is at stake; but, even so, I believe Chen-Chak would have died himself rather than do what he did, had it not been for the commands of his superior.

Now he was studying the laboratory, and, though it was only a morass to Forrest and myself, he seemed to understand the use of each instrument the chamber contained. He strode over to a small desk half-way down the room and motioned to Forrest to join him. "These controls are far too delicate for my heavy hand; you must assist me," he said.

Forrest was delighted to aid, and under the giant's directions manipulated this dial and that lever, though he had to be careful in handling them, built as they were for the hands of the midgets. I was left by myself, as if Chen-Chak did not consider me capable of carrying out his instructions. Together the pair moved from desk to desk. I can not begin to appreciate what forces were brought into being, but I imagined the Saturnian was crippling the inner world of Mercury. Later, when I had time to question Forrest, he admitted he was as much in the dark about what he had actually accomplished as I was, but one after another the great tubes were losing their fire to become dead, inanimate things of glass.

Now, I sometimes wonder why Chen-Chak did not destroy them altogether, for, as it turned out, it would have been better so. It seemed he still had the hope of converting the vicious little men to his way of thinking, and wanted only to cripple the machines for the present. As it was, the Mercurians must have felt the awful extremes of heat and cold as the fires died out.

Almost without realizing what I did, I kept an eye on the doorway through which the last of the little men had tried to escape, so I was immediately aware of the appearance of two more in the entrance as soon as they came. They stood there astounded, unable to believe their eyes. But before I could warn Chen-Chak he had whirled about, leveled his odd globular weapon upon them, and dispatched them as neatly and quickly as he had their fellows. All the while we remained in the laboratory no more appeared. Later, however, when we were to look with Chen-Chak into the vision plates aboard his great space-
ship, we were to see that the Mercurians depended entirely upon gravity and anti-
gravity repellent forces to move upward or downward through their world. Hence
when the Saturnian shut down their forces, the billions were all prisoners on the levels below. Only by forming human chains from one level to the other had they managed later to gain the laboratory level after our depart-
ture.

We spent no more than fifteen min-
utes in the laboratory. All but
four of the great tubes were colorless now, and, in place of purple flames in
those four, a golden red flame played in them. Chen-Chak took from his hidden pocket a small round glass which he put to his eye. He gazed through it a moment, then seemed satisfied.

"The way to the surface is open to you now. In the chamber above you will find your ship as you left it. Drive outside, and you will find my ship there. I shall meet you directly."

"You do not come with us?" I inquired.

"That way is too narrow for me, and would involve too much time to change its co-ordinates. I come another way. Go now!"

Forrest led the way to the circular corridor down which we had first come to the laboratory. I glanced back once. Like a gigantic genie from the past, Chen-Chak dominated the scene. He faced the central machine that stood before the four tubes in which the ebullient gold-red fire glowed. He bent over the machine with a small bar in his hand that he had pulled from the side of another instrument, which he was using for a lever. With the reddish gleam of the tubes on his ebon body kneeling on the floor, he was like some ancient worshiper doing homage to some weird god.

I had to hurry to catch up with Forrest who was walking quickly up the ramp, then we were entering the bare room that lay at its end, and found the open shaft overhead awaiting us. As soon as we stood directly under the opening a force picked us up and lifted us through the shaft. We thus ascended to its mouth, and it was simple to grasp the side and climb upon the solid floor of the great chamber housing the Victory. Never was there a more wel-
come sight.

Inside Forrest went directly to the controls and swung the ship's nose around to face the great opening of the cliff, slowly making for the opening. We were outside in the twilight before we saw the Saturnian's ship, but we did not have to look far. It dominated everything. A gigantic sphere, easily a thousand feet high, it stood on the bowl's rim.

Never had I seen a queerer ship of space. It was a deep, dull black, without a single feature to mar its outer shell. It stood in clear outline before us, yet that outline, on the other hand, oddly enough was indefinite, indefinable. I had the feeling that it had no real substance, that I could easily plunge a hand right through it. It looked spongy, tenuous.

"Where's its entrance?" I asked of Forrest, but he shook his head. There was nothing about the sphere to distinguish any part of it as an opening. The Victory was a gnat beside it, as we bumped over the rough terrain looking for an alleged entrance. We had almost completely encircled it when I pointed a shaking finger at the shell.

"Do you see what I see?" I half-whispered as I stared at the apparition, which suddenly appeared against that strange background.

It was Chen-Chak, and he had come from within the sphere; had in fact
seemed to walk right out of one of the sphere’s walls!

Now he was standing before us, one foot on the ground, the other in the substance of his flyer motioning us to come to him at the point where he stood in the dull blackness. We could just distinguish his form, a darker shape against his unique background.

“I—I take it, he wants us to go through the wall itself,” muttered Forrest, and I saw for once he was shaken. I nodded, unable to express my thoughts.

CHAPTER X

War!

HANDS quivering on the controls of our ship, Forrest, nevertheless, was prepared to obey, and slowly he drove the Victory straight for that dull black wall before us, feeling his way, ready to put on brakes at the least warning of danger. Chen-Chak had disappeared from our sight within the shell, and now we were touching it. I was correct in my conjecture concerning its tenuosity, for the walls were no more than a mist falling away from us as we pushed forward, swirling behind us as we came on. Our lights refused to pierce the gloom, the darkness seemed physical, touchable. It was but a few seconds we were in the darkness; it seemed ages. Forrest was manipulating the flyer’s progress practically by touch as his eyes sought to see through the opaque mist. Then it was over. Light came, light so dazzling, it blinded us.

Forrest, perforce, had halted the Victory, not daring to budge until his eyes adjusted themselves to the sudden change. We found we were within the sphere, our ship resting on a surface that had a slight curvature. This surface had the appearance of solidity, in color it was black, smooth and highly polished; yet it was apparent to us that we had come through the outer shell at this very point!

Stupefied by the passage of these strange events neither of us thought to move. We simply sat where we were, staring in incredulous wonder. The sphere, as I already mentioned, was approximately a thousand feet in diameter, and we had traversed about ten feet on entering it. The curved walls stretched away from us in all directions, the farther sides barely discernible because of the brilliant light, but overhead was something more tangible and unique.

It was a round ball about forty feet in diameter hanging in the exact center of the sphere, yet having no visible means of suspension. Spaced at intervals all over its surface were queer masses of metal and glittering glass, with intricate arrangements of wheels, wires, glowing tubes, levers and dials, and other shapes I can not give name to. And facing us, head down, standing upon the lower curve of the ball was none other than our strange host, Chen-Chak. He was motioning. He wanted us to join him.

“He wants us to come up,” I said without reason to Forrest, wondering at the same time how it was to be done. He nodded, automatically closing the visor of his helmet. (Neither of us had taken off our space-suits, but had simply opened the visors on re-entering the Victory.)

“Hadn’t we better renew our air-cartridges?” I timidly suggested.

“There’s evidently no air, out there.”

“Sure thing.”

Wordless we removed the expended air cartridges from each other’s shoulders, and refilled them. In the airlock, after all the air had been withdrawn, we found it necessary to adjust our valves to outside air-pressure, then gin-
gerly stepped upon the inner shell of Chen-Chak’s unusual ship. Still I did not see how we were to ascend to that round ball hanging unsupported overhead. I glanced about, half-expecting a ladder to appear from nowhere for our convenience. Then it happened.

As suddenly, as if struck by a mighty hand, everything went black around me, a vertigo seized me. Never before had I been so sick in so short a space of time. Horrible pains shot through my body, tore at my muscles and beat at my skull. I remember wondering that the human body could stand such pain. Then, as quickly as the seizure came, it was gone.

Swaying slightly I remained where I stood, enjoying the sucrose from pain, training my senses upon my body to make sure that all of me was right again. There was a lightness in my head, a new feeling of unlimited strength in my body. I felt I could lick ten of my equals at once.

“Well, ostrich, how long are you going to keep your eyes shut?”

It was Forrest having his fun at my expense, and I realized my eyes were tight shut, the muscles ached from a tight compression.

“Say, I guess you’d close your eyes if you were suddenly seized by a severe pain like . . .” I did not finish my thought as I wondered if he had not suffered as I. Then I saw Chen-Chak.

Instead of being on the ball far over our heads upside-down he was beside us, holding a queer weapon in his hand, that looked somewhat like an old-fashioned sawed-off shot-gun. But what magic was this? My eyes were on the level with his single green orb; he was no longer a giant, but a man the size of myself. He was smiling. He spoke.

“Sorry, I made you suffer so, but it was necessary to increase your size, so the extra-gravitational force here on the control ball would not be felt so strongly. This way, it is more evenly distributed, your muscles can coordinate themselves more easily . . .”

Increase our size! Extra-gravitational force. Control ball, evenly distributed. What was the man talking about? Wide mouthed I listened to him, half turning to see what Forrest thought of this. Thus it was I caught a glimpse, from the corner of my eye, of what lay over my head. And instead of seeing the forty foot ball I was puzzled to find myself staring upward at the curved surface of the inner shell of this strange space-ship. And there, like a fly on the ceiling, hung the Victory!

Now I grasped what had happened. Somehow the Saturnian had lifted us beside him to the control ball of the ship; and in doing it he had enlarged our size to equal his. The ball itself had its own gravity field so that what ordinarily should have been “down” was “up” and vice-versa. Later Forrest tried to explain how Chen-Chak increased our size by causing the molecules that made up our systems to expand, thus swelling us to more than double our own height and girth. That accounted for the sudden sickness. I was tongue-tied now with surprise.

“YOU see, my friend,” said Chen-Chak kindly. “Time does not grow heavy on one’s hand as long as there are so many miraculous secrets to be plucked from Nature’s breast. These miracles I seem to perform are merely the results of long ages of study and research. And still there are many grander secrets unknown to the Raxtai. Who should want to die, when the future promises so great a fulfilment?”

I nodded. “I guess that was a faux pas on my part, but what could you expect from a savage like me.”
“You are far from being a savage. Let us call you a child instead. To a child old age is death. But forget all that. You admire my ship?”

I looked at him blankly. I wasn't going to let myself be tripped again. I shook my head dubiously. “It's the queerest ship I ever saw.”

Chen-Chak threw back his head and laughed. “Ay, I would not doubt it, but in the future your ancestors will use such ships. Long ago my ancestors deprived our world of all its minerals, excepting those too close to the core of the planet to be attainable. But Nature does not stop with the physical. The void is even a greater storehouse of energy and raw material. Each day our scientists discover new forces heretofore unknown to us. You call these forces "rays," a term as ambiguous as our term "forces." We do know them as energy in various forms, pure unadulterated energy.”

Here Forrest who had been silent spoke up. “You mean to say that the solids of your ship are not solids after all?”

“Ay. Not solids as you know solids. There is no metal in all your worlds comparable to the metal of this ship. You noticed, when you came through the outer wall, that it appeared to have no substance, but was a mist, vapor? Yet, now you perceive that that surface on which your ship rests is as solid as this sphere on which we stand. However, before you entered here, this sphere was even as the outer wall—immaterial.

“See!” As he spoke Chen-Chak suddenly depressed a small lever on a machine near which we stood. At his touch the white glare of light around us faded sharply, the floor seemed to fall from under our feet. I felt mists swirl around us once again. Unconsciously Forrest and I clung to each other, still we did not fall. A moment and the light returned, and with it solidity.

“Rays, forces,” said the giant, “held in subjugation by the power of light. To explain how it is done would involve a degree of higher mathematics that is beyond your present comprehension. Light is the only thing known to subjugate these rays completely. Once the rays are solidified, they are as malleable as any metallic ore, and more enduring. You comprehend?” As he spoke I thought I saw a flicker of a smile cross his face, but it was gone as quickly as it came.

Neither Forrester nor I were willing to admit anything. I think had Chen-Chak said to me “You are dead,” I would have straightway dropped lifeless at his feet. But let him play with his rays and forces, I was interested simply in the material world. “How,” I wanted to know, “did you gain access to your ship in the first place? I know it was impossible for you to come up that shaft. How did you come?”

Forrest answered before Chen-Chak had a chance. “You materialized yourself within the wall of the ship, didn’t you, Chen-Chak?”

He nodded. “I was longer in coming than I expected, for it was difficult to work with the Raxgen forces, but I had to calculate exactly the ship’s position, else I might have materialized in your little flyer, or not at all, since the atmosphere here is too tenuous a medium to rely upon.”

“Is nothing impossible to you?” Forrest demanded sharply.

THE miracle man laughed as if at a good joke. “I hope that it shall not be impossible to convert the men of Mercury to my way of thinking! Come, we talk, and meanwhile our diminutive friends organize their forces anew. And
THE FALL OF MERCURY

I must have word with the Heig Rau' first!"

As he spoke he was leading us around the sphere to its opposite side. Here a strange machine filled almost the entire side of the sphere. It looked to me for all the world like one of those mammoth pipe-organs of Tellus. There was a great bank of keys (I counted no less than forty rows), and in a great circle were the "stops," round, white buttons marked with queer hieroglyphic-like figures. Above, standing on end like the pipes of the organ, were hundreds of glass-like tubes ranging from pencil-thinness to a size double a man's girth. Only the tubes had no mouths such as those of organ pipes. Set above the banks of keys were a series of round mirrors of highly polished metal. The central mirror was about three feet across, and those on either side were proportionately smaller, until the last ones were no more than four inches across.

Chen-Chak took his place immediately upon a round stool, facing the keyboard, placing his feet on two round bars that dropped from the framework before him. Pressing one of these bars brought the "organ" to life. Color began to glow in the tubes above him; in a faint whisper of golden light. It wavered a moment then burst into bright glory that communicated itself to one then to another of the tubes, row after row. So intense grew the golden light it began to hurt our eyes, but then Chen-Chak touched several "stops" of his keyboard and the gold faded into blue, a restful blue, that soothed and caressed. For a moment his twenty fingers raced over the machine, and so absorbed were Forrest and I in that play of colors that we noticed nothing else, until the Saturnian suddenly spoke.

"You will find chairs behind you, gentlemen." He knew that we were tired.

His voice startled us, and looking around we were surprised to find that on a yellow slab next to the machine, there were two black metal, three-legged arm-chairs, where no chairs had been before. Glancing at each other we picked up the chairs and placed them just behind Chen-Chak, sitting down self-consciously. We were unaccustomed to chairs appearing from nowhere. Next we looked at our host to express our thanks, only he had forgotten us as he worked diligently over his controls.

We realized that the central mirror over his head was glowing with silently light; behind it colors flicked in the hundreds of tubes, a very mosaic of polychromatic flame. But the mirror held our attention as it turned blue, then green and back to silver. Now a form was taking shape on its surface, and a massive head looked out of the mirror, a smooth black head, single-eyed and strangely handsome. The face was gentle, kindly.

"Ge Hurta, Heig-Rau, dictator of Saxta," whispered Chen-Chak, then was silent, and a strange voice spoke somewhere in the depths of the machine. The language was new to our ears, liquid in tone. Chen-Chak answered in kind, and for several moments the two carried on a dialogue of which we could not understand a word. Chen-Chak played again on his organ, and one of the smaller mirrors beside the central mirror showed another head. It was the livid white, ugly face of a midget Mercurian, expressionless except for an ugly twist to the thin lips. Chen-Chak addressed this second apparition in the same tongue he had used to Ge Hurta, and again we listened to unintelligible speech, to which now and then the Heig-Rau of Saxta added a word.
THERE was a sweep of emotion across the midget’s face, and though we could not understand what was passing between the three we saw that the Mercurian was defiant, contemptuous and at the same time challenging his enemies to do their worst. In his mouth the liquid language sounded harsh, guttural, menacing. Ge Hurta spoke one sharp, terse word at which Chen-Chak switched the control that blotted out the face of the Mercurian leader.

Instantly another vision flashed on the screen, and we found ourselves peering into the laboratory we had lately quitted. The four tubes that had been left alive by Chen-Chak flanked with color, pulsating with vivid purple fire, and an admixture of rose and violet. It was evident the little men of the inner world were busily repairing the other tubes that had been tampered with. Even as we stared into the mirror, another four tubes sprang to life; faint dim colors glowed in their depths to slowly swell in intensity.

The mirror on the other side of the central screen in which the face of Ge Hurta still showed glowed with another scene. It was a second laboratory within the planet. Here again was strange activity we could not understand. One after another Chen-Chak filled all the vision screens before him with life, showing us unwonted activity within the planet under us.

A deep sigh seemed drawn from the very depths of his being as he declared “It is war!”

CHAPTER XI
Fighting a World

THE face of Ge Hurta on Saturn faded from our view, and Chen-Chak’s four hands flew over his controls, filling the great tubes above us with lively color, soft shades, pastels, fairy colors. Then suddenly they appeared overcome by new colors, dark reds, purples, deep midnight blues, glaring yellows, hideous greens, and through it all the giant’s fingers flew over the key-banks so swiftly they seemed to have a life of their own. We seemed forgotten.

“But no,” he spoke. “It is war to the end. Henceforth it must be either Saxta or Raxge, Saturn or Mercury. Raxge has fired the first shot. Ay! Feel that?”

As he spoke he took his hands from the controls and for a moment allowed the colors in the tubes to fade slightly. Forrest and I both felt it, a terrible pressure weighing us down in our chairs, a fierce tingling through our bodies, an inability to move a muscle.

I grew frightened. I wanted to cry out. But Chen-Chak unaffected by the power the Mercurians were pouring upon his ship returned to his keys. Instantly the tubes gave off evil colors, blacks, dirty browns, bilious greens and yellows. With their coming the force that had swept over Forrest and myself lifted and we were free again.

“It is my power against all of Mercury, for Saturn can not aid us now. Venus and Mars lay in the way, and would absorb all the forces Raxta, which is Saturn, could generate. It is because they know that the Raxgeu dare defy us!” exclaimed Chen-Chak.

Again we were forgotten, as his fingers worked over the controls. The colors in the tubes held steady. The central mirror was filled with the scene in the laboratory below, and I saw that all the tubes there were alive, the purple almost black. The Mercurians were gathered in excited groups, gesticulating wildly with their four hands. Now and then one broke from a group to run to a desk to work on paper or on a machine.
Sitting where I was I could see half Chen-Chak’s face. It was grim, set in tense lines. Now he pressed the bar under his left foot far down, depressing it to its full extent, and his face showed the strain put upon him. The tubes seemed wild, colors shot back and forth so quickly it was impossible to follow their flight. Then suddenly all color was gone, each tube was a solid spear of white, white light. Forrest and I had to cover our eyes against the torture of that splendor. Somehow I managed to open my eyes again and focus them upon the mirror containing the Mercurian laboratory in miniature.

What had happened there? Why, they were in panic! Groups were running here and there, tiny men bent over machines, sometimes two or three were clinging to a single lever in an effort to depress it fully. I almost imagined I could hear their high shrill voices shouting with fear. A few, however, seemed to have kept their heads, they were working over controls, just as Chen-Chak toiled, and the white light in the tubes over our heads grew momentarily dull. In response the Saturnian depressed the bar under his left foot even farther than before, his face showing again the terrific struggle that it all cost him.

It was Forrest who called my attention to what had occurred around us, for I had been too intent upon the laboratory scene and Chen-Chak to think of anything else. “Look,” breathed Forrest, “the walls of the ship are gone!”

I followed the direction of his finger to see that he spoke the truth. The solid walls of the sphere were gone! Only the ball on which we sat, remained, suspended almost five hundred feet above the lonely twilighted world of Mercury. Where we sat we were at right angles to the surface, our bodies parallel with the livid soil. The strange black cliff that was the entrance to the inner world pointed it damning finger at us. On the horizon gleamed the orange ball that was the sun.

What new phenomenon this? “The Victory!!” I cried. “It’s gone!”

“It is safe, never fear,” the deep booming voice of Chen-Chak assured us. “Your ship is on the other side of the ball. The walls are still about us, though they are invisible to you. We are simply in transit and whenever that occurs the walls appear dissolved. There is nothing to fear . . . .”

“In transit? You mean we are traveling?” I looked from Chen-Chak to the surface of Mercury hanging below us. I could have sworn it was unchanged in relation to ourselves.

“The sun, the sun!” Forrest clutched my arm as he cried out.

HANGING on Mercury’s horizon the sun looked like a great, bloated orange. Normally, it was two-thirds the size when seen from Tellus, but now it acted queerly. It seemed to be expanding!

But no, even as I stared, it dwindled again and was Mercury-normal. But wait. It had changed its place; it appeared to be swimming rapidly toward us; now it was high overhead. Mercury was rotating.

That was only the beginning of Sol’s queer antics, or rather Mercury’s antics, for that planet seemed to have gone wild. It rocked like a ship at sea; it danced frantically up and down; it spun weirdly so that the sun appeared first in one corner of the sky, now in another, and sometimes was not visible at all.

My eyes kept returning to Chen-Chak’s chromatism. I knew that in some way hands flew over the keys before him. Colors raced in the tubes over his black head, sometimes white, sometimes pur-
ple, red, yellow, black—every color of the spectrum, and many more it seemed to me, as several colors flowed together, combining into every sort of weird chromatism. I knew that in some way the Saturnian was accountable for the strange antics of Mercury, irreverently I thought of a dog shaking a bone.

I glimpsed the scene in the laboratory below again. There was no longer panic there. The little men were grimly manipulating their machines, only glancing now and then at a big screen I had not noticed before, which showed them the motions of their planet as they struggled for supremacy with the giant Saturnian.

I understood now what Chen-Chak was doing. He was dragging Mercury from its orbit...

And the motions of the sun grew wilder. Now it was twice its size, now it retreated rapidly, now Mercury spun like a top. There were moments when things seemed almost normal, the sun tottered, then swung back to almost normal position on Mercury’s horizon. The Mercurians were giving Chen-Chak a real fight, and all the while they kept his ship in leash. He was at checkmate, and unless he could control new forces the battle was lost. Suddenly the laboratory scene faded from the central screen over his face; the head of Ge Hurtta on Raxta took its place. His booming voice spoke—a moment—and his face disappeared as Chen-Chak shook his head.

THEREUPON, I saw him reach forward under the framework of his machine with his right foot, and he placed it on the second bar which he had disregarded up to the present. He pushed upon it with all his might, and in response the tubes overhead glowed with a new, bitter, fiery flame. Involutarily my eyes went to the sun. A cry rose in my throat. For the sun was falling, falling upon us.

I could not tear my eyes away. All thought left me as I stared in disbelief at the great ball of flame racing toward us at unguessed speed. It was terrific, horrible, soul-stirring.

What was Chen-Chak about? What was the order from his Heig-Rau? Was the intention to throw Mercury into the sun?

Again I looked to the Saturnian, and was startled anew. There sat Chen-Chak at his controls, unperturbed, playing on his bank of keys as if in some pleasant studio far away from strife and world-ruin. His face was quiet now, the heavy lines that had etched themselves there were gone, and I could have sworn I heard him humming. He was humming. In the silence around us we could hear a soft murmur like that of a mother crooning to its babe, a cat purring in the sun.

And all the while the sun grew more massive. It filled our sky; its horrible fire tinting the landscape below with a lurid flame from hell. Mercury spun at a terrific rate. Day, night, twilight had become one. The planets were a blur of light in the sky. It was the end, I told myself, the end of everything!

Fascinated I could not tear my eyes from the sky. It was a kaleidoscope of varying shades of light. The sun was a deep yellow. And still grew larger, nearer, rushing at us with awful velocity.

“Don’t look at the sun,” roared Chen-Chak, but the warning was useless to me. Unable to look more I had dropped my head between my arms, covered my face with my hands and awaited the death I was certain would come.

An age seemed to pass over me, and yet nothing happened. At length I dared to lift my head, to open an eye, looking at Chen-Chak instead of the sun.
He still sat on his stool, unruffled, hands moving slowly this way and that. The fire in the tubes was a vicious red, but I could look at them unblinkingly.

The central screen still showed the Mercurian laboratory. The little men knew doom was upon them. They no longer tended their machines, but stood with arms folded staring grimly at their own screen that showed them the sun, a mass that overflowed the mirror. The Lilliputian who had defied Ge Hurta stood before a smaller screen in which a black face showed. Glancing sideways, I realized that an enlargement of the same face showed in one of the screens before Chen-Chak. Chen-Chak addressed him again in their common language.

The little Mercurian was without emotion. At a word from Ge Hurta he sneered, arrogance written upon his ugly face. Ge Hurta said a single word, the Mercurian shrugged his double shoulders. Now I felt a new power surge through the sphere upon which we sat.

I dared a half glance at the sun that filled all the sky, one side cut sharply by the bulge of Mercury. More rapidly than before we were falling toward it. It was no longer globular, its shape was indefinitely defined, broken by the great out-spreading arms of the mighty prominences, some reaching as far as 300,000 miles from the surface, while all round stretched the corona, a glorious halo of pearly light pushing millions of miles into space.

I found myself remembering all I knew of the sun. The photosphere, the apparent surface of the sun that bounded it; the reversing layer lying above the photosphere, a layer or sheet of gases from five hundred to a thousand miles thick, called by that name because it produces a reversed or absorption spectrum, containing the many terrestrial substances such as calcium and iron in vaporous state, and above that the chromosphere, another layer of gas from five to ten thousand miles deep, the color-sphere. At the times of a total eclipse of the sun as seen from Tellus, it is the chromosphere that appears as a brilliant fringe whose outer surface is covered with leaping flames. These are the eruptions of the sun-spots called prominences which break up into it and ascend to great heights.

And we were falling into that awful furnace. That was certain. We were close to the corona by now, and it would be a matter of a few minutes before we should enter it at the rate we were going.

I thought of Mercury. Insulated as we seemed to be from the sun's glare and heat, by the unique forces Chen-Chak controlled, we were as comfortable as if we sat in our drawing room at home, but was Mercury insulated? Wouldn't the refrigerating units be overtaxed to the cracking point? I looked at the place where Mercury should have been.

I had grown used to the vision of us apparently suspended five hundred feet above the planet but that five hundred feet had stretched to a thousand, was widening more. And the planet swayed, wobbled!

And something was happening around us. The air was growing dark, black, a haze enfolded us. It was reminiscent of something I had known in the past, the far past. I remembered. The walls of Chen-Chak's space-ship, those suspended forces, whatever they were—were closing about us. Mercury and the sun were blotted from our eyes.

For minutes on end we seemed tottering on the brink of some horrible abyss, I could feel the sphere turning under me, turning faster, faster, the whole space-
ship was turning, turning. Again Chen-Chak's hands flew over his controls, and the blackness grew, while the tubes above him were filled with pulsing waves of black. Next came the sensation of falling, as if the control ball had dropped from under me. I had a last vision of Chen-Chak—tensely grim, every line in his body, every muscle clearly penciled in my eyes, then the sickness came.

It was the same sickness I had experienced when Chen-Chak expanded our bodies on our entrance to the sphere, only it was sickness intensified a thousand times. Every bone in my body seemed crushed; I felt that giant hands tore at my flesh, twisted it into a thousand shapes. Something pounded my skull so it rang like a mighty gong, and every reverberation was hell itself. I died an uncounted number of deaths. I scarcely knew when the suacease from pain came.

CHAPTER XII
Au Revoir

SOMEONE was shaking me. I could feel the touch of flesh on my arm, I heard a voice, but I was unmoved. I was dead, of that I was now thoroughly convinced. Why should someone try to arouse me?

But the shaking persisted, the voice was insistent. “Bruce, Bruce Warren, old man, come out of it. It’s all over now!” I recognized Morton Forrest’s voice, his shaking hand was physical. “We’re safe, man, safe. Don’t you understand? Wake up, wake up.”

“All over? Safe?” What did those words mean? Ah, it comes back. Mercury, the little men, the Saturnalian escape, the impossible ship, the fall into the sun. But how could we be safe? I was curious enough to open my eyes.

I was lying on the floor of the inner ball of Chen-Chak’s ship. It wasn’t a dream after all. Forrest was bending over me. I saw the strange form of the Saturnian above me on the stool facing me. Behind him a rosy light glowed in the hundreds of tubes. Overhead was the great globe of the sun, normal once again, scarcely larger than when seen from Mercury. It was all a hoax. None of these things had happened. We had not fallen into the sun!

“What’s all over?” I demanded of Forrest.

“Mercury—in there!” He jerked a hand toward the sun.

“I shook my head to clear it. “Then—then it really happened. We dumped Mercury into the sun?”

“Yes, Mercury is in the sun.”

“But we—how did we escape? I thought we were done for!”

“We went through the sun, through the chromosphere!”

“We—what? You mean we really fell into the sun?”

“Well, not into it, but through it, through the outer shell. We’re on the other side now. Look, you can see Tellus just appearing around the limb of the sun.”

“But that’s impossible!”

Chen-Chak spoke for the first time, his voice sounded infinitely weary. “It is true—we have been through the sun—the first men to have been through a sun—and live.” There was real awe in his voice. He went on speaking as if thinking aloud. “Men of Raxta said it could be done by attaining a velocity of a speed more than that of light itself . . .”

“Lord! And Mercury fell in there!”

“They fought to the end, refusing to believe it could be done; they refused to admit defeat, to bow to the supremacy of the Raxta! It is better so. No man has the right to enslave another.”
Forrest and I added “Amen.” It was true, men most live in harmony, in brotherhood, not in strife and slavery. The solar system was too small to contain such creatures as the Mercurians. I remembered Tica Burno, and those other living test-tubes. They were revenged, the future saved.

“But wait,” I cried. “We have been taught that each planet has its place in the system, that each is a cog necessary to the balance of all. How could Mercury fall and not affect the others?”

Chen-Chak shook his head. “The whole system was affected, but my people were guarding them; they did not permit them to fall. You will find changes, some, I think, for the best.”

I found myself shivering, my head was in a whirl. “I want sleep, I can’t think,” I cried out.

The Saturnian nodded, his face was kindly, fatherly. “A few minutes and you shall be home, my friends, on your own familiar world,” and as he spoke he turned to his controls.

I may have slept. I do not know, but I was aroused by the deep voice of our host. “You have arrived, my friends,” he said.

I JUMPED at the sound of his voice, and saw that Forrest had been deeply wrapped in his thoughts. He almost jumped from his seat at the sound of that heavy voice. We both stared across the few million miles separating us from our own world. Behind us glowered a turbulent sun, its heaving tentacles painting space in a raw gash of color. It seemed more radiant than ever, its prominences higher, less controlled. Was Sol having a fit of indigestion after its heavy meal? It appeared closer to Tellus than usual.

Later we learned what had happened during the fall of Mercury. Tellus had dropped fourteen million miles nearer the sun in one awful moment, Venus six million. Our world was to profit by the change in the future, but now the terrific storms occasioned by Mercury’s going had not subsided. From our position we could not see a single physical feature, earth and water were shrouded in thick clouds.

Forrest spoke. “I had hoped, Chen-Chak, that you would invite us to your world.”

The Saturnian or Raxtau was silent a moment. “I believe you are needed more on your planet for the present, Morton Forrest. There is much you can explain there. I shall not say you are unwelcome on my world.”

“Now you must go.”

As he finished speaking he rose from his stool and picked up the rifle-like affair with which he had raised us from the inner shell of his ship to the control globe on which we stood. We made our adieux, and as he turned his instrument upon us we felt that awful sickness of his ray, as it reduced our bodies to normal size. We found ourselves standing once again on the solid floor beside the Victory. Chen-Chak stood on the globe waving one monstrous hand from the air-lock of his ship.

Forrest took his place before the controls, and the walls under us melted away. Slowly the Victory drove through the swirling mists, and we popped into space once more. Together we turned our eyes to look at the giant sphere, but it was gone. Gone completely!

THE END
Draught of Immortality

By A. W. BERNAL

The fantasy, with a deep moral in it, may fairly find a way among stories of science fiction. This story is concerned with life and ethics and is told in so pleasant a way as to entitle it to appreciation from our readers. It involves a subject for serious meditation.

"FOUND it, you say, sealed up air-tight within the wall?" I murmured, echoing the words of the workman who faced me.

I examined it again. It was a deucedly queer little box. But I had to disagree with the other's assurance that it had been sealed up air-tight anywhere. There must have been crevices communicating with the outside of that old wall, else spiders could not have spun the many webs whose remains draped sides and top of the casket.

And old? Grimy with dust and cobwebs which had blackened and caked into a crust of nearly a finger's thickness, the miniature chest mutely proclaimed its age. I held it close to my ear, shaking the rusted thing gently. Dust swirled about my head in a cloud, bringing a fit of sneezing upon me. I set the box upon the table and reached for my handkerchief while a little thrill of anticipation ran through me. I had heard a faint rattle... the box still contained a secret!

The round-faced Cockney workman was jabbering again. "Hi was just digging at the wall, sir," quoth he, "when all of a suddint, sir, Hi 'its a stone wiv my 'and-pick wot drops plump out at my feet, sir, wivout Hi 'aving 'ardly tapped it like. 'Somefing stryngge 'ere," says Hi and looks to see why the stone's so bloody loose. And blimey, if Hi don't see a little square cubby-'ole in the rock wall, sir, wiv that iron box in it.

"'Oho," says Hi, 'the marster of the 'ouse should 'ear of this,' says Hi, and straightway brings it up to you, sir."

I flipped the man some silver for his honesty and instructed him to tell the other workers to call it a day and leave. Mumbling appreciation for my generosity, the Cockney pocketed the shillings and discreetly withdrew at once, leaving me alone in my study.

Now, the discovery of the ancient casket had come about in this manner. My place is an old, ancestral castle near an insignificant little spot called Chalmsbury Abbey, in Surrey county. It is old, of 13th century origin, and consequently always sadly in need of repair. On the day the remarkable old chest had been brought to me, I was having some strengthening work done in the huge cellar, which first necessitated the removal of a crumbling stone wall originally erected to form a small underground cell, beneath the castle proper. The rusted, be-webbed box had been found sealed-up in a hole within this same wall.

I had, of course, absolutely no idea of what the mysterious box might contain; but still I felt that something of importance, or at least, something of great singularity was within its rusty confines, for to my knowledge no one had ever had occasion to use
A shudder racked my frame as I saw the bright flames lick hungrily at the ancient's hand and yet burn him not.
that underground chamber except its builder, who had lived in the early part of the 13th century. So I decided that there was a very good chance that the little chest had been locked within stone for over seven centuries.

But the thought that made my heart pound faster and made my fingers tremble, as I sought to pry open the rusted lid of the metal box with a letter-opener, was that this ancestor of mine was purported to have been an alchemist and sorcerer who had concocted many potent and eerie brews within his cellar ‘devil’s den,’ until his Satanic majesty himself had appeared to the magician one day to demand his soul in payment for a knowledge of unearthly secrets.

Fumbling nervously, I inserted the letter-opener into a crack between the lid of the box and the body of the box and pressed, gently at first, then with gradually increasing strength. Presently the rust-eaten lock snapped, the corroded hinges parted, and the lid came free and clanged metallically upon the table on which the box was resting.

Breathlessly, I blinked my eyes to rid them of the dust and rust particles which I had stirred up in a thick cloud. When the pungent haze settled, I stared eagerly into the casket from antiquity.

Just exactly what I had expected to find I am not sure, but what the casket did contain was several sheets of dried and brittle parchment and a tiny phial. It was growing dim in my study; the short winter’s day was drawing to its close. I switched on the table lamp, sub-consciously aware of the noise of the departing working-men, as I did so. With the utmost care I removed the cracked parchments and the phial from the box and placed them upon the polished table-top near the lamp, as if they were so many delicate egg shells.

In the rays of the lamp I could discern every character on the parchments, faded though they were, and observed at once that the document was penned in a scrawling, black-letter Latin. This I had expected. Hastily I ran my eyes over the sheets, seeking some signature or date by which I might identify the age of the writing. A scribble across the bottom of the last parchment sent the blood throbbing through my brain and I uttered an exclamation of delight, one almost of triumph, for in bold, firm strokes was written:

**MUNSTER—MCCXXIV**

*Munster.* Munster the Magician. Munster—Satan’s apprentice! My hand quivered as I caressed the signature of my wicked ancestor, and my whole being tingled with I know not what emotions. For Munster—in spite of his name he had been a full-blooded Englishman—was my forebear who had first dwelt in this castle which is my heritage, and who was said to have bartered his soul to Satan in return for the knowledge of a wizard!

My eyes darted from the parchments to the little glass bottle. I snatched this up and held it against the light. The phial was full of an amber, syrupy fluid that reminded me strongly of honey. Only this liquid seemed to sparkle with diamond dust; it seemed to be permeated with life. I tilted the phial and a bubble of air rose sluggishly through the golden syrupy stuff.

I LICKED at my dry lips. What devil’s brew was I gazing at? What ghastly ingredients had been boiled in a witch’s cauldron to produce these
few drops of enchanted elixir? My face lit up, as I visioned my bearded ancestor muttering incantations over a steaming pot of magical herbs in his cellar den, seven long centuries ago.

But what was in this particular bottle? I grasped the stopper to the phial and was about to withdraw it when I stopped, struck by the thought that the beautiful liquid might give off poisonous vapors that would strangle me where I stood.

"No," I said, talking aloud to myself as is sometimes my habit, "I'd better read the parchments first, before I unsheathe this bottle of Munster's magic. No doubt, all is explained in the accompanying sheets."

So speaking, I very carefully laid the phial down beside the parchments and got ready to make a translation of Munster's ancient message. I began by throwing some logs upon the brightly blazing fire and preparing a big pot of tea, for I well knew that the translating of Munster's medieval scrawl into modern English would prove a difficult and painful task which might carry me well into the morning. I was decided, at all events, to decipher the writings and get a full understanding of the secret of the casket from antiquity at a single sitting. I was burning with curiosity.

After changing to comfortable carpet slippers, pulling up a soft easy-chair, and filling my pipe, I set to work at my task. For many hours I pored tediously over the black-letter script, pausing only to add another log to the fire from time to time. Smoke issuing from my pipe hung about my head in a dense, blue haze, as I continuously puffed at it through the long hours. I scarcely heeded this, however, for in truth I was plunged deep in concentrated effort, since my Latin was none too good to start with and the parchments were often cracked right at the parts where Munster's scrawl ran, while in a few spots the ink had faded out to such a degree that sometimes two or three words were entirely illegible. Fortunately, though, these gaps were infrequent and I was afterwards able to supply words of my own to fill in the blank spaces and so to make the message read smoothly.

When at last I finished, it was nearly midnight. The wind was howling loudly through chinks and crevices in parts of the castle, and at frequent intervals I could hear the window panes rattle, as the gale hurled a flurry of white flakes thudding against the side of the building.

I threw my pencil down and leaned back in my easy-chair, briskly rubbing my right hand to get the cramp out of it born of my weary hours of toil. I blinked my eyes a bit sleepily, for in spite of the high key of excitement to which I was pitched, a rather strenuous day coupled with my recently completed work of translation, at which I was no adept, had left me extraordinarily fatigued.

I yawned and glanced at the sheets of paper upon which I had scribbled my translation. It seemed an extremely little amount of writing to have required such a tremendous amount of work on my part to translate.

I commenced to read. Sleepily at first, but with increasing eagerness, my eyes traveled over the ancient message which I held somewhat unstably in the light of the lamp, with a hand that shook from excitement.

Here is a very free translation of that astounding tale, written upon parchments and stowed away with the vial of golden fluid in the little iron casket, one day seven hundred long
years ago, by the hand of Munster, the Magician.

"To Ye Who Find This Writing:

"Know that I am a great magician. "Know that the phial in this casket is of miraculous potency—cherish it. Diamonds and rubies and other precious gems would be traded for it—treasure it. A monarch would offer his throne for its elixir—keep it. Men would gladly slay for it—hide it. And if ye desire immortality—drink it!

"Know that I, a mortal born of woman, have by like elixir, endured upon this earth for more than four score and fifteen years even now and yet am I sturdy, and strong of arm, and clear of eye, and quick of wit.

"Yet take not the golden potion now, but list to me and judge ye whether or not it is accursed or blessed.

"Hark ye to my tale. When I was but a beardless youth, I apprenticed myself to a great man and one who was called a sorcerer. But know ye that this appellation was false. Forsooth, the ocean's depths held no secrets from him, yet he was not a wizard. Forsooth, the darkness of the Pit held no terrors for him, yet he was not agent to that which is Evil.

"Known to him were the mysteries of nature, of the heavens, of the earth, and of the waters beneath the earth. Yet it was not by the evils of witchery but by the greatness of his mind, that he knew these things and others. For know ye, who read, that what men in their ignorance call magic is but natural to him who understands; and know also that many things man names 'miracle' are but the workings of a natural law of our mother, Nature. For, in truth, Nature's wonders are all miracles, and the only miracles.

"Perhaps ye who read know that even now, and in your day, remote from this, men do no longer burn others at the stake and torture them foully and with great cruelty, because of their vast wisdom; but instead, honor them, and do homage, for their greatness is above that of kings and their wealth cannot be measured by yellow gold.

"Know ye then, that it was to such a man that I, a youth, apprenticed myself. From him I learned much of value, and he taught me to perform what I believed to be miracles, for he loved me.

"When he was smelt out as an agent of Evil, and put hideously to death, I escaped and with me took his writings which shone with knowledge as does the night sky with stars.

"Many wondrous things I found within his writings, and of them all I studied most eagerly those that dealt with the boiling of herbs and the compounding of the minerals of the earth into potions that killed mine enemies and made well my ailing dear ones.

"And I read those writings and studied them until I could do all things a physician claims to do. I made the cripple sound, the infirm I made strong, and to the blind I sometimes gave sight, although this I could not always do. Aye, sometimes I failed, but mainly I won triumph from my minerals and herbs.

"But if I could win the dying back from death, I could not breathe again into a cold corpse the spark of living, and this I desired to do above all things.

"For two score years I toiled, aye, the years fell away as the raindrops fall from the clouds, and yet my goal was unreached.
"KNOW ye now, the glittering crown of success adorned my brow at last. For one dismal night, as I brewed certain herbs and other vegetable and mineral matter in this, my abode, I distilled a fluid that was the Breath of Life in Life, yet not the Breath of Life in Death. But I knew, for it was so revealed by my arts, that the fluid, which I had that night distilled from a cauldron of chance, was the fluid that could make man the nearest to God that mortal can ever be.

"I had not discovered the stuff that would bring Life out of Death, for the newly dead corpse I had stolen from its coffin lay unmoving upon the floor, even when I forced a few precious drops between the cold lips. But I had discovered the stuff, by the blood of man, would pump eternal life into his living body, and make him seem immortal in the eyes of others.

"This I discovered when, in distilling the precious golden drops, one tear of immortality fell upon a fluttering moth which had singed itself in the flame of my taper, and now lay expiring upon my stone bench. Before these startled eyes of mine the butterfly of the night beat the air with its wings as it drew new strength from the golden elixir and now, and I, who write this, pen the truth, the tiny being, made immortal, winged its way back to my flickering taper, and lo! it passed through the heart of the flame, unhurt and unsinged. Again and yet again the creature dared the blazing wick, and then while I stared agape with wonderment, it alighted unmindful of the heat, and clung to the burning wick as does a bird upon a twig!

"Yet still was I cautious, and I captured and kept this strange moth for many months, while I vainly tried to mix more of the honey elixir, but I could not. Aye, for months I essayed to add to the few drops of gold in the phial upon my shelf, but in vain. Aye, and for months I watched the deathless moth, and tried to burn it and drown it or otherwise bring it to an end, yet it lived on, even though by Nature's own decree its life should have ceased in a few weeks at most.

"A year passed, and through fear of what might befall me, should I succeed, I abandoned my efforts to distill more of the golden fluid. But even yet the moth lived on and the golden drops sparkled from within the little phial on the shelf. Drink them I could not, for I was afraid. Dared man to alter the laws of Nature, to give unending life to that which was but born to die? I longed for, yet also feared, those radiant drops of gold. Aye, the more I turned my thoughts upon what I had already done, the greater grew my fear of the golden elixir.

"I, a mortal, had mocked God and given of eternal life to a dying creature. I shuddered to think what might befall me for my rashness. Yet was what I had done really a crime? And, forsooth, it had been but an accident that the golden drop had fallen on the moth. Still, I thought it wiser to have naught further to do with such dangerous experiments, and I silently swore that never again would I attempt to produce more of the miraculous elixir, no matter what should happen. But I had not the heart to destroy the phial, but continued to keep the little bottle on its shelf.

"And then one day, when I was seeking to turn baser metals into gold with my acids, deeming this a more harmless pastime than tampering with the forces of Life, I became stricken with some terrible fumes given off by the mixture over my fire.
Dense clouds of horrible smoke choked from my lungs every vestige of air; it seemed to me that into my throat had been poured molten lead; I could not breathe. I could only suffer.

"Aye, the tortures of the Pit could be no worse than the pain I then endured. Blindly I groped for the door, seized though I was with a fit of coughing that brought blood to my lips. My eyes were useless, and seemed but fiery blisters on my face; I could see not a single ray of light and I knew that doom was upon me and my time was come.

"Groaning in agony, I stumbled and fell against the wall of my chamber. My hand struck the shelf hollowed out of the stone and my fingers closed upon a phial. It was the bottle that held the liquid that was life!

"Feebly, while my brain seemed bursting with the awful anguish I felt, I thrust the phial between my teeth and clenched them tight upon it without even attempting to withdraw the stopper from the glass cylinder. I did not feel the pain of the splintering glass as it stabbed my mouth and throat; I was too near insensibility. I reeled backward from the wall and staggered through a roaring furnace of torment, made hideous with demons of fire. My senses left me, and I swooned.

"Expelling from my mouth long slivers of glass, I at length opened my eyes as consciousness returned. I was stretched upon the floor of my chamber. The atmosphere was still thick with the deadly vapors that had but so recently been searing the life from my body. An acrid billow of foulness enveloped me, clothing me with its oily, reeking mantle of strangulation. My starved lungs could stand it no longer, and I sucked in the dark fumes. My lungs drank in the poison-cloud, as though it were naught but the sweetest of mists, and I experienced no ill effects.

"I was immortal!

"The next sensation I experienced was that of a mild warmth which seemed to be bathing one of my hands which lay extended before me. Curiously I raised my head, and involuntarily jerked my limb to my side in fear. My hand had been lying across the red coals in the heart of my fire, which the foulsome vapors were now extingushing! I held my hand in front of my eyes, with much trembling. The hair upon the hand was not so much as singed. I was immune to harm!

"I sprang to my feet, exulting. I was the only thing upon the face of this world, who would not, nay, could not die. I, yes, I had drunk a draught of immortality, and sipped of the fount of endless life. I rejoiced.

"The intoxication I felt during those first few moments soon departed, however, to be replaced by the soberness of terror. Aye, the truth of it is that one instant I was a joyous immortal, and the next a fearful old man who flung himself to his knees and groveled, until his gray beard swept the floor. And though my body was immune to pain, I suffered with the sickness of the soul. For once again I feared wrath from Heaven in punishment for mocking God.

"Long I was prostrated in prayer, begging forgiveness for what I had done; then, trembling in every limb, I left the hidden chamber and, sweating with fear, laid myself down to sleep. I said no word to my family of what had befallen; they knew nothing even of my discovery of the liquid of life.

"Years passed, and gradually my fear of what I had done was forgot-
ten. Only did I remember my oath not to meddle with the forces of Life.

"I exulted in my power to resist the ravages of death. My sons, already grown to full manhood, became aged; my beloved wife grew less and less strong, became, finally, a feeble invalid. I alone remained unchanged, strong with the strength of immortal life. Still I breathed no word of what I had done that night in my under-ground chamber, when I became deathless. Gradually I began to assume a feebleness which I did not in the least feel, so that I might allay any suspicion that would otherwise be aroused in the breasts of my acquaintances.

"T
 THEN one dreadful day my wife beckoned me to kneel at her side, and whispered to me that she felt she had not long to remain here on earth. And she asked me if I thought I would soon follow her to keep her company for that eternity after death.

"Now, know ye, that I loved my wife as the flowers love the sun. She was as much a part of me as this hand that writes this document; nay, she was more akin to me than this hand, for I had two hands and I had but one of her.

"And I grew afraid, and I shook inwardly, and I moaned aloud, for I knew that I would never die—could never die. And I knew that soon I would be left without her who meant more than all the world to me, and I spent the night in secret sorrow and wailing. I knew not what to do.

"Then with the dawn's awakening, I hied myself to my cellar chamber. For I had made a decision. I would break that vow which I had made; I would once again dare wrath from Above; I would turn my back upon my Maker, and I would give my wife to drink of the golden elixir of immortality!

"With hands that trembled with fear lest I should be blasted ere I had finished with my task, I set to work compounding the ingredients to be mixed in my long unused cauldron.

"Without sleep, for strength unlimited seemed to be mine since I had swallowed that golden elixir, I toiled tirelessly day and night boiling, compounding, distilling in feverish haste. Countless times I distilled a liquid from the mixture I had made, and countless times I cried out bitterly and dashed the fluid to the stone floor, for it was not honey-golden, nor did it possess the consistency of syrup.

"Ceaselessly did I alter the proportions of my ingredients, and ceaselessly did I stir the many boiling pots in my underground cell: and all the while the spark of life dimmed in my wife's body, like a star that fades from the firmament.

"Only by my magic potions and my skill as a physician had I thus far kept the hands of Death from her frail body, and now I was at my wit's end, for I had exhausted my stores of science and magic upon her, yet still she waned . . .

"With a heart grown to lead, I dragged myself away from the dying woman who was so dear to me, and who could no longer even muster strength enough to move her lips in speech, to go with little hope of success to examine the distillate which was condensing from my latest mixture. Nightfall would see my love stiff in death, for if this time I had failed to produce the shimmering drops of liquid gold, I knew the struggle would be over and the Reaper would claim his prize.

"I, who was now become Præmo-
theus with the vulture of despair eating at my heart, pushed open the door to my underground chamber and stepped within its precincts. In amaze my eyes pierced the gloom, to fasten upon the tiny phial on the stone bench into which the fumes from my cauldron were condensing. A fit of trembling shook my frame until my teeth rattled like pebbles shaken in a bottle, for there in that phial, even as I watched, a drop of liquid gold formed from the cooling vapors and trickled like a sluggish tear of honey down the glass!

"I had succeeded.

"And down the leather of my cheeks streamed real tears, tears of a joy inexpressible. I sank limply to the floor as my quivering limbs gave way beneath me, and crawled upon my gnarled knees to the place where stood the phial that sheltered the drippings of immortal life. Quaking like a leaf in the breeze, I clung to the block of stone that served as bench and stared at the forming drops which glistened as though they held the substance of the sun itself.

"Faster and faster the drops formed, and with each one came a hundred centuries of existence for my wife. More precious to me was the gold in that little phial than all the real gold in the universe, for it meant that my beloved and I should spend eternity together—not beyond the grave—but here, here, upon the green earth!

"When the tiny bottle was three-quarters full the glistening drops of immortality ceased to form, and I snatched up the cylinder, thrust a stopper into it, and fled up the stairs into the main part of the castle with the speed of an arrow from its bow.

"Flinging myself upon my knees at my wife’s side, I drew the stopper from the phial of life. Gently, I raised the white-tressed head of her, whom of all things I worshipped as I did my God.

"‘Drink,’ I forced my quavering voice to say as I held the phial to her dear lips. ‘Drink! Drink, and become well again, my dearest one!’

"But she did not drink. She did not move those lips that touched the well of immortality. She did not drain the little phial that offered her life eternal. She did not move at all. I was too late. She was dead.

"Long I sat there with Death on my one hand and Immortality in the other, while I sobbed in anguish. When at last my passion had run its course, and I could weep no more, I tenderly laid the little white-haired one back upon her pillow. I placed one last kiss upon her lips in token of an eternal farewell.

"For she whom I loved with a love that could not die—she for whom I had defied God—was gone from me. Gone from me not only during this life, but for that other life, the life beyond the grave, as well.

"Aye, she, who was already dead, and I, who could never die, were parted for a space of time greater than that which will see the suns and the planets of the universe dead—for ever and for ever.

"I WRITE this now within my cell by the light of my flickering taper. Soon I will seal these parchments away with the phial that contains these, to me, futile drops of the Blood of Life into a secret hiding place in the wall of this room.

"Oh, that it were given to me to know whether or not I should preserve or destroy this elixir of immortality! Ah well, mayhap what I am doing is for the best. I should hate to
administer this potion to any living creature at present; but the events of a day to come perhaps will alter circumstances, and this golden fluid may still prove to be the glorious boon I had hoped for, instead of the accursed potion of evil it has been for me.

"Come what may, I cannot find the will to remove all traces of the marvel I have wrought. So it is, then, that I have decided to seal this little bottle in a place of secrecy known, at this day, only to myself. Should chance sometime in the dim future reveal this phial of immortality to one as yet unborn, then may that one be possessed of the wisdom required to decide the fate of this draught of eternal existence—wisdom which, alas! I have not.

"I go now to leave this wretched place for all time. Since my wife was buried these stone walls seem but a prison of mockery; and hold for me only memories of one who was, but who is no more. Aye, ye who read, I go now from this place that has seen the birth of eternal life to seek—Death.

"And now I have placed the little bottle of the Blood of Life within a strong metal box, and presently I shall add these few sheets of writing.

"Know ye, that within this phial there is enough of the sparkling syrup for one person and only one—drink it if ye will. But know ye, too, that should ye drink, then thou art become deathless and in defiance of the laws of Nature. Consider carefully all matters, then drink, if ye are still so minded, this Elixir of Life, this Fluid of Eternal Existence, this Draught of Immortality.

"Signed in sorrow by
"MUNSTER—MCCXXIV."

Having concluded this remarkable document I sat back in my chair gasping, my mind surging with emotions I cannot possibly analyze. I picked up the tiny phial of golden fluid once again and held it up to the light. In my trembling hand the stuff shimmered and danced like splashes of molten gold.

"Here, between the thumb and forefinger of one hand I held, according to the story of the parchments, the key to a deathless existence, the boon of an absolute and eternal immunity from death. And it was mine!"

I chuckled to myself. Draught of Immortality? Bah! Rather was it some unsavory concoction of a long-dead fanatic of a sorcerer, I told myself. Still, he had said that he was not a sorcerer but a man of science. I was torn with doubt.

Could, then, a draught of immortality be possible in the light of present day science? Was it not scientifically possible to prolong life by means of chemicals? I mused, half-believing. After all, I reasoned, why not? Haven't scientists caused dead hearts to beat anew by the injection of adrenalin, and hadn't Munster himself declared that feat beyond human achievement? Well, if that were more of a miracle to my wizard-ancestor than the giving of immortality, and if we could at this date revive the dead, why shouldn't the golden fluid have some potency in staving off the Grim Reaper? Anyway, what could I lose by drinking the stuff and waiting to see what happened?

So I mused into the night. But the more I thought upon it the more I believed that there must be some truth in Munster's claim, for of what benefit would it have been for him to seal away, for untold centuries, a cylinder of strengthless fluid? One thing was certain, Munster himself believed in the power of his drug.

Then why not drink it? I raised the
phial, shrugged my shoulders, and was about to withdraw the stopper from the bottle, when I paused once more.

Providing that the phial did actually contain an elixir of immortality, was I certain, after reading Munster’s warning, that I desired deathlessness? Would immortality prove a boon or a curse for me if I achieved it? I must decide before I open the phial, for once I had drained its contents I would be powerless to counteract its effects.

I lowered the hand that held the tiny bottle from seven centuries back, and placed the thing upon the table. I closed my eyes for a moment’s rest; I was absolutely fagged from trying to make sense out of the muddle in which my brain was steeped.

Then through my weary mind began to pass pictures of what I might do, once I possessed the power of immortality, once I became immune to the disease called death.

Just to think! With all eternity to look forward to, I could achieve a supreme greatness, unequalled by any other person in the history of the world. I would become Barrett the Deathless! Barrett the Immortal! Barrett, God upon earth!

Knowledge that men today strive for in vain would eventually be mine, were I immortal. The haste that drives men to unhappiness and to ruin would not hurry me, for, with all time ahead of me, centuries would drop away like ticks of a clock, unheeded. In the time it takes a race to emerge from savagery, to bloom in civilization, and to die away into obscurity, I could study the secrets of the universe and still have all eternity before me.

When interplanetary trade became an everyday commonplace, I would still be young. When the secrets of the distant suns became as open books, I would be alive to read them. When all the mysteries of creation were solved and made known to man, I would be there to understand them. When—

I almost sprang from my chair, so startled was I to hear a furious pounding at the front door of the castle. Frowning, I threw a glance at the window. It was so frosted with snow that I could not see out, but I could hear repeated soft thuds, as great clouds of white flakes were flung against the pane by the fury of the storm outside. A visitor in this tempest of the midnight hours? I felt annoyed.

“Who the devil is it?” I demanded of myself as the heavy pounding at the door was resumed. “Just a moment!” I yelled loudly into the night. “I’ll be there in a jiffy!”

I drew my dressing gown about me, shivered a little, and knew I had let the fire die down too low. I started reluctantly across the room when inadvertently I brushed against the table upon which was the lighted lamp, the rusted casket, the weird parchments and the vial of golden fluid.

I tossed a glance over my shoulder as I passed, and the next instant I let out a frightened yelp. When I jostled against the table I had started the little glass cylinder containing the fluid of eternal life to rolling. It neared the edge, and I was dashing madly around the heavy mahogany obstacle to catch the precious vial ere it should drop. If it fell, the impact with the stone floor would smash it of a surety.

For one awful instant I thought I wouldn’t reach it in time, then with a gasp I managed to round the corner of

WHEN men launched the first ship to bridge the gulf between the planets, I would be there to watch.
the table and snatch up the priceless bottle just as it fell free of the edge of the piece of furniture. For a moment or two I stood petrified, my heart pounding like those hurried blows against my castle door, which for the moment I had completely forgotten.

Supposing I had lost the phial! The thought seemed terrible even to contemplate. Gone was all doubt as to the drug's miraculous powers; I believed implicitly in its effectiveness. Hastily I glanced about the room for a safe place in which to put the thing I held in my perspiring hand. No place seemed to suggest itself as a stronghold against the danger of a chance misfortune.

I jerked up the phial and looked at it once more in the light. Light, energy, life seemed to dance from the sparkling liquid. After all, I did want immortality. I sucked in a sudden breath, pulled out the stopper, and emptied the phial into my mouth before I had time to change my mind.

The fiery syrup seemed to scorch its way down my throat. For a brief interval my head swam and I reeled with an overpowering giddiness. I looked at my hand. It was trembling but it appeared to be glowing from within through some wondrous diffusion of energy. I darted from my study with light heart and scampered down the long flight of stone steps to the front door of the castle in a trice.

I was immortal! My heart was singing a paean of joy as I flung back the heavy bolts on the massive door to admit my unexpected visitor, still hammering away with great impatience.

"In with you! Quickly now!" I shouted exultantly above the eerie howling of the wind, as I swung wide the portal and admitted the insistent clamorer. A figure slipped into the dark hall which, in my haste, I had left unlighted. I slammed the door shut against the push of the storm without.

Shoving home the bolts, I sprang lightly across the hallway, snapped on the lights, and wheeled to face my visitor. Instantly I froze in astonishment; I could feel my jaw drop and my eyes widen.

Before me stood an old man—but old in years only, for his eyes were clear and his step firm. A long white beard seemed to clothe him like a garment so thick and long was the silvered growth upon his face, and shaggy white brows, like wisps of cotton, hung drooping over his expressive, deep-set eyes.

Yet it was not his bodily appearance which had caused me to gasp in astonishment. It was his attire, or rather his lack of it, which seemed so strange in such a scene. For my aged visitor—who, mind you, had braved a storm to get here and whose shoulders were yet mantled in mounds of snow—was clothed only in a loose robe-like affair entwined carelessly about his otherwise naked frame and gathered in at the waist by a hempen cord. And on the hall carpet, in little twin puddles of melting snow, stood this strange personage so incongruously clad for such a raw night—barefoot!

The old man, observing my stupefaction and guessing its cause, said in a voice at once rich with power and heavy with soberness: "Forgive my odd attire, my son, but I am a recluse and this is my habitual raiment. I came here in such haste that I had not time to dress otherwise than as you see me."

At this courtly speech I awoke to my duties as host and, mumbling profuse apologies for my delay, ush-
ered the old hermit upstairs to the comparative warmth of my study. My striking companion made no further comment, but followed silently and swifly after me with remarkable agility for one so advanced in years.

Mindful of the sheets of ancient parchment and of the cobwebbed casket upon the table, I hurriedly drew my aged visitor across my study and seated him in an arm-chair in front of the fireplace in such a manner as to prevent his seeing anything of the room or its contents. I glanced at his face and was satisfied that he had perceived nothing unusual. Indeed, the queer man seemed abstracted, as though he were mulling over in his mind something that was puzzling him.

As hastily as I could, I stirred up the fire and soon had a fine blaze roaring again. I was about to face my thoughtful guest when my eye happened to chance upon an iron poker which, lying upon the brickwork, half in and half out of the fireplace, had been heated during the course of the night until at one end it was glowing redly.

I was seized with a sudden idea. I glanced behind me to assure myself that the silent old man in the chair could not observe what I was about to do, then cautiously withdrew the red-hot poker and laid it across a fresh, unburned log.

Instantly a thin curl of smoke spiralled upward from the wood as the fiery iron contacted its surface and charred it with a streak of black. Then very gingerly I inched one finger forward down the length of iron rod, until gradually I was pressing upon its very tip! And now, though blue smoke was still wisping upward from the glowing poker-tip, I grasped the hot rod in my fist and calmly placed it in its rack.

I stared at my hand. It was not seared or even blistered, but only faintly warmed by the poker’s touch. Then I knew that indeed was I immortal!

Inwardly rejoicing, I seated myself beside my visitor and thus we sat for a moment more of silence, he wrapt in his musings and I thrilling in every fibre with the realization of my newly gained eternal life.

“My son,” suddenly boomed the old man’s voice. “I have been vainly attempting to find an avenue of approach, so that I might most naturally broach what I have to say to you this night. But I confess I can see no other way than merely to speak bluntly the words I must, and have done with it.”

I made no answer but stared curiously at the hermit’s monkish robe. “Forget my grotesque costume and its seeming inadequacy against the chill of the wind and snow tonight,” said my visitor with a trace of impatience. “Let it suffice to say that this is my habitual garb and that mere inclemency of weather could never endanger one of so hardly a constitution as myself. Many times have I withstood Nature’s fury in attire no more complete than this; tonight’s little flurry of wind and snow is as nothing.

“And now, my son, lend your attention to matters of infinitely more import.

“Word has come to my ears this day from the lips of a drunken workman in a village tavern that, only a few hours ago, there was found, hidden in a secret place in this castle, a small and ancient metal box. Upon overhearing this information, I left in all haste and made my way to your abode with as much speed as I could com-
mand. Speak, is what I have heard the truth?"

Anxiously gleaming eyes bored into mine, sought to pry their way into my very thoughts. In bewildered wonderment at what the purpose of this unexpected and bizarre visitor was to be, I nodded dumb acquiescence. At my hesitating agreement, the burning eyes that were looking into the depths of my being widened, it seemed, with sudden fright. The thinly clad figure snapped abruptly erect and his voice dinned in my ears with a fierce intensity.

"Then I must ask you to give me that box. At once."

There was threat in that voice, and pleading as well, a mixture that struck me as being peculiarly terrible. I sat gazing mutely up at the determined bearded face above me, not knowing what to say. At the moment, my brain was a whirl of confusion.

"Give it to me. Now . . . . At once. Do you hear? You must!" The gaunt figure extended a gnarled hand, a gesture of demand and of finality.

"But . . . . but—" I stammered obtusely, and inadvertently my gaze estrayed in the direction of the table where stood that same chest which my visitor was demanding with such force and urgency. The oldster's keen eyes instantly followed mine and he spied the fateful iron box with its accompanying sheets of Latin inscribed parchments.

A gasp of horror burst from the aged hermit. Backward he stumbled as though from a heavy physical blow, backward until his body struck against the fireplace. I sprang to my feet in incomprehending alarm.

"Too late! Too late . . . . Always too late!" he choked and, slowly tearing his wide eyes from the rust-rotted casket as though he were held by a hypnotic vision, he focussed them on my suddenly ashen face. A thrill of blind terror tugged at my heart with icy fingers. I beheld two large tears course down the leathern cheeks of that eerie guest!

"You've opened the chest, and found the parchments and the phial!" The old man was almost shrieking in his horror. Then while I stood too confused and terrified to command my tongue, a burst of hope flashed across his wrinkled visage. Desperately he spoke.

"But the writing was in Latin. Yes, in Latin! And you were not able to read it, were you? Not able to read it . . . ."

THEN at last I found my voice.

"Why, yes . . . ." I muttered in a half-whisper. "Yes—I had just finished the translation when I was startled by your knock on the door. I—"

I halted lamely. The bearded one seemed about to collapse; the look of desperate hope had vanished from his face with the abruptness of a light extinguished. Despair alone was writ large upon his worn features now.

"Look," he muttered leadenly. Deliberately he stooped before the crackling fire, thrust in an arm, and brought out a blazing fragment of wood. He held his palm toward me. A shudder racked my frame as I saw the bright flames lick hungrily at the ancient's hand and yet burn him not. I stared into his deep, sad eyes, horrified.

"Yes," he moaned, tossing the blazing wood back into the fireplace. "Yes, I am Munster, who wrote that chronicle which you have read this night."

Munster! The very name pounded through my brain as though it were the beat of a huge gong, deafeningly. Munster the Magician. Munster the
Immortal! Here before my eyes was the man who had bottled the Breath of Life, who himself had endured, deathless, for seven long centuries.

"Munster," I cried in a voice intended to be full of gladness. "I believed you . . . and I drank it! I drank the draught of immortality. We two, you and I, are immune to death's disease for all eternity. Together we can rule the Universe!"

But Munster only sighed a mournful sigh and sank wearily into his chair again, burying his face in his hands. For a time the room was empty of sound, but for the crackling in the fireplace and the soft sobbing of a despairing soul. I, frozen like stone on the spot where I stood, felt the blood congeal in my heart, while the glorious ecstasy of my immortality ebbed swiftly from my veins.

"Too late," groaned Munster bitterly, at last. "I am indeed accursed, wretched man that I am."

The white head jerked up abruptly so that we two deathless creatures looked one another in the face. "Do you know, my son, that this night you have plunged yourself into a chasm of endless despair? Do you know that, by your hand and this one of mine, you have entered the vale of eternal suffering? Yes, shudder from this hour on, for you must live and sleep with infinite misery and torment until this planet revolves no longer about its sun.

"Oh, why did you think that you had wisdom that I admitted was not mine? Why did you drink that dreadful elixir? Ambition? Know you, ambition is but the horizon that seemingly ends a road which never terminates; when once you reach your goal, the path leads on anew to another horizon, and thus it goes on for ever. Know you, in the breadth of a century or two you will tire of your futile grasping for power.

"Know that from this hour time becomes endless for you. That loved ones and friends will die and decay to dry dust and yet you will live on, despairing for their companionship and love. New friends you will make, aye, in the millenniums to follow, but each one will be the comfort of but a single moment. For years are now become seconds, and centuries but minutes, for you who are cursed as I am cursed.

"Know, too, that these friends you make for the brief instant of their lives will add each their weight of sorrowful memories to the burden of loneliness you are to bear through all eternity.

"Know, finally, that to you there is no longer any future. All is one endless Today in which there can never be hope of change, or a dream of a fresh start on the morrow. That for you, through all the endlessness of time, there can bloom naught but the hideous blossoms of despair. That for sustenance you can eat but of the maggoty food of torment. And that to satiate your unquenchable thirst you can but drink of the bitter waters of hopelessness."

"Stop!" I shrieked, clapping my hands to my ears for I could bear the acid words no longer. "I won't despair. I won't let my soul die within me. I'll—"

"You'll what? You will do just as I have done. You will begin by studying, seeking to learn all the things there are to know. You will indeed learn many things, aye, but you will not dare reveal them to men, for fear of plunging a world not yet ready for such knowledge into a maelstrom of death and destruction.

"You will gain, eventually, all the learning that man has ever wrested
from Nature, aye, and unanswered longing will devour you cancer-like because you will have but a taste of true knowledge and nothing at all of real wisdom. Yes, you thirst for infinite knowledge, but does not a man’s thirst grow only the greater if he drinks but drops? You will learn so much that you will realize you know nothing; and when you have at last reached the limits of learning beyond which no mortal may go, you will writhe in torment and go mad with unsatisfied desire to know more!

“You will abandon your study of the ills of mankind and despair of leading humanity along the paths of righteousness, for each and every sin and all the pain and suffering of a million million creatures will rankle in your heart like a consuming disease, festering there for interminable days and endless nights.

“You will find that, since there can be no future for you, there can be no hope. You will discover that you cannot live just for today, for Today is filled with naught but the eternal hideousness of sin and suffering and grisly death. You will learn that for you there can only be the past in which to dwell, and the past forever yields up but ghosts and mournful memories to fill you with endless sadness, remorse and regret.

“And lastly you will perceive that for you there is only one way out, there can be but one solution to your problem—Death. And you will do as I have done, seek out this sweet boon—this greatest blessing to mortal flesh—and you will, as I have done before you, eat out your heart with the realization that for you and you alone in all creation there can be no death.

“I, Munster, who became possessed of immortality and wearied of it at the same time, I, who having lived but a mere seven centuries of my allotted endless span of life and who know that naught is sweet but death, even I, who stand before you now, tell you this and pity you in your fate. For we two are cursed as none have ever been cursed before and as none shall ever be again, I pray God.”

As these final words of doom fell upon my ears I collapsed into my chair, overcome with horror and terror at what I had done and at what was to be my destiny for all unmeasured time to come.

“But is there no way out?” I wept, beating helplessly at my head as though that would pound some solution into my mind, while huge drops of cold sweat hung beadlike on my forehead. “Can’t we find some way to die? Poisons, or bullets—somewhat?”

MUNSTER merely smiled with an air of infinite hopelessness. Grimly he thrust out his bared wrists and displayed the ugly scars thereon. “I did that with a razor in 1402,” he said in mechanical accents; and added forlornly: “I have enough poisons in my system to murder a thousand men.”

He shook his mane of thick white locks away from his brow, disclosing six nasty little marks around the temple. “Bullets,” explained the dead voice.

Then to crown this ghastly revelation, Munster tore open his robe at his chest and bared his breast to the wavering light of the flames in the fireplace. Exactly over the heart were a criss-cross of innumerable livid white threads—the marks of dagger thrusts!

With a tortured groan, I flung my head back against my easy-chair and clasped my hands over my eyes to shut out the gruesome sight.
Futilely.
Already my head was racked with the horrors of suffering unendurable and already my whole being seemed struggling with the burden of the awful centuries to come. In utter silence, the two of us, Munster and I, sat with the weariness of eternity upon us—outcasts facing an existence of such ungauged loneliness as was never the fate of any other living things, spared as they were by the merciful kindness of death.
I held my eyes tightly closed and tried to blot out everything—to gain forgetfulness, if even for only a few moments.
“Oh, Munster,” I implored at length, “Munster, can’t you, with all your knowledge, find some way out for us, something to undo this terrible mistake we have committed?”
No answer.
“Munster? Munster—speak.”
I forced open my leaden eyelids. Munster was gone! I glanced fearful about. The fire was dead, and the room was chilly with the cold of early morn. I sprang to my feet, calling out Munster’s name. Only the mocking echo of my own voice replied. I was alone. I flung a look at the window. The first rosy fingers of dawn were reaching up into the sky.
Dawn? How long, then, had I sat in that chair by the fire? Hours, apparently. And now Munster had gone, forever I supposed, leaving me to be quite alone and friendless for all eternity.
In horror I prepared to dash from the room. I must find Munster, I must find him! I staggered distractedly across the study, then suddenly I stopped.
The lamp was still shedding its feeble rays over the table. On that table were sitting the ancient cobweb mantled casket, the sheets of Latin-filled dried parchments together with the English translation in my own hand, and—the little phial of golden elixir!
Yes, there on the table lay the draught of immortality, as yet undrained. I rubbed my eyes and looked again, unbelievingly. It was still there, that scintillant fluid, and as a long ray from the rising sun smote it, its tiny container was shot through with leaping golden flames of life-radiance, filling the whole room with unnatural brightness.
Then it wasn’t true, I told myself, it wasn’t true! I wasn’t immortal! And Munster hadn’t left me alone for all eternity. Indeed, I had never really even seen Munster. That weird visit had all been a dream—a nightmare. I must have fallen asleep and merely dreamed of Munster and of that unthinkable horror, eternal existence, through which I had thought myself doomed to pass!
“Oh, thank God,” I murmured fervently, in a voice tremulous with relief. I felt as though a tremendous weight had just been removed from my shoulders. I, who had dreamed of the death of all laughter for me, chuckled with ecstatic happiness.
Two quick strides carried me to where the golden liquid sparkled brilliantly within its tiny container. I snatched it up and glared at it triumphantly.
“Hah—” I gloated, addressing the phial I held tightly clutchéd in one fist, as the closing sentence of the parchments recurred to me—“Fluid of a Million Torments, Elixir of Endless Suffering, Draught of the Devil... that for you!”
With these words I flung the tiny bottle of golden fluid at the fireplace with all my might. The seven century
old phial shattered against stone into a hundred splinters of glass, and I laughed in sheer joy at the little smear of syrupy gold as it trickled sluggishly down across the bricks. That little shining smear was all that was left of the stuff of eternal life. The draught of immortality was destroyed!
And I have never regretted its loss.

THE END

Science Questionnaire

1. What all-important metal faces exhaustion? (See page 11)
2. What becomes of metallic iron? (See page 11)
3. Can scrap iron be recovered and made over for use? (See page 11)
4. How much of the atmosphere can be used by man? (See page 12)
5. What effect has animal life on the air? (See page 12)
6. How much of the air is essential to our life? (See page 12)
7. What effect has vegetable life on the air? (See page 12)
8. Is air a rare gas on our earth? (See page 12)
9. What may be described as the circuitous path of water? (See page 13)
10. How can ocean currents affect climate? (See page 14)
11. In what part of the universe is almost pure iron in existence? (See page 15)
12. What two divisions of meteorites are recognized? (See page 15)
13. What metal other than iron is usually present in iron meteorites? (See page 15)
14. What are the Andromids and what is the origin of the name? (See page 17)
15. What are the relations of the rotation of Mercury on its axis to its revolution around the sun? (See page 32)
16. How many degrees of Mercury’s longitude are in perpetual sunlight? (See page 32)
17. What amount and how situated on Mercury is day and night? (See page 32)
18. What is the measurement in degrees of Mercury’s libration? (See page 32)
19. What are the principal layers of the sun and what are their effects? (See page 71)
20. What are the ranges of frequency of audible vibrations (sound)? (See page 105)
The Symphony of Death

We deal here with the people of Mars and the people of earth. The story goes on in a very vivid way and is absolutely a tale of the future. It is an interesting recital of contests, of victories and of results, the relations of the planets being rather well enlarged on.

By RAYMOND A. PALMER

"SWEET shades of Luna!" exclaimed Dale Scott, reporter extraordinary, as he finished decoding the last word of the tersely worded spacegram. "That guy would put a brass monkey to shame!"

Again he read the matter-of-fact sentences:

NEW INVENTION TO BE DEMONSTRATED BEFORE MARTIAN COUNCIL TODAY. GET ALL PARTICULARS AND FORWARD, NO EARTH MEN ALLOWED ENTRANCE.

Signed: PEARSALL

Pearsall was the editor-in-chief of the solar system's largest newspaper, the Toronto Solar Post, and a positive genius at thinking up hard assignments for his hustling group of interplanetary correspondents. It was a tough game and Pearsall was a hard man. He condoned no failures. Results were what he wanted, and he didn't care how you got them.

"Cripes! Does he think all I have to do is snap my fingers and become a Martian?"

Evidently Pearsall did think so, for his message said very clearly, "Get all particulars and forward." And if they weren't forthcoming promptly, the next message would state various other things forcefully and decisively.

Dale sighed and glanced at his chronometer.

"Well, I suppose it's got to be done. I'll have to get atomic if I want to get there before the council convenes. It's nine now and the demonstration is scheduled for eleven. I wish those infernal scoop-shooters would miss a couple of these miracle man stumbling blocks. Some day the 'Luck-o'-the-Scotts' is going to degravitate and knock me in the general direction of whatever Valhalla defunct reporters go to."

Before he began his transformation, he carefully burnt the decoded message and crumbled the ashes into the expensive Venerian rug that covered the floor of his suite in the Interplanetary Hotel.

THE average Martian is a good six inches taller than the average Tellurian, but Dale stood six-foot-four in his stocking feet. Thus the problem of height was the least of his troubles; his unruly shock of amber colored hair when properly combed out added another inch to his stature and thick soled shoes supplied the remaining inch. The large barrel-like chest and long arms gave him some difficulty, but he finally solved these problems by the use of judicious padding and lengthened sleeves. Ingenious finger-tips of celluloid that he produced after
Suddenly a cry of disappointment broke from his lips as two white flecks blossomed out and gently wafted their burdens earthward.
some moments of fumbling in his makeup bag helped wonderfully in strengthening the illusion. It was a comparatively simple matter to produce a bulging forehead and high cheek bones with his stock of clays and waxes.

An hour later the transformation was complete. Dale, surveying the result in the full length mirror with which his room was equipped, was forced to admit that it was good; even the presuming Pearsall would have smiled in satisfaction. It would take a very close scrutiny indeed to penetrate the disguise. Pearsall had not issued his terse commands without full knowledge of the prowess of his best correspondent.

A rap at the door interrupted his study. He hesitated a moment, then strode to the door and opened it, confronting suddenly a little Martian bellboy who gazed in surprise at this unexpected Martian figure.

“Oh, pardon me,” he stammered, tendering a spacegram. “Space message for Mr. Scott.”

“Thank you,” said Dale, accepting the red envelope. “I’ll give it to him.”

Dale smiled as the delighted messenger ran off, a generous tip clutched in his hand. Closing the door he turned to the mirror.

He bowed to his reflection. “Spacegram for you, Mr. Scott,” he said, holding out the message. “Oh, I see you have one. Then I’ll read this if you don’t mind.”

Tearing it open, he read:

**FIRST CONCERT MY NEW CRYSTAL SYMPHONY WILL BE BROADCAST TOMORROW RELAYED TO STATION E231M TRINIDAL KNOW YOU ARE INTERESTED WOULD LIKE TO HAVE YOU LISTEN AS CONCERT WILL PROVE I WAS RIGHT.**

Signed: SHELDON

Dale grinned. Good old one-sentence Jerry. So he had finally achieved success. Dale remembered the day Jerry had told him of his dream of a new symphony. Many a concert had he attended with the enthusiastic music-lover during their companionship in college. But Jerry had always chafed at what he termed the primitiveness of modern symphonic music. Dale recalled the long arguments they had had concerning the possibilities of further development in symphonic tone vibrations. Especially did he remember the water glasses Jerry had purchased to prove his contention that the answer lay in crystal notes rather than in stringed instruments.

Dale had veritably laughed him out of the apartment when he produced an outrageous conglomeration of off-key tinklings, but in spite of his failure with the glasses, Jerry had stubbornly maintained his belief that further progress in the stimulation of human emotions lay in the crystal. And now, this spacegram seemed to indicate that Jerry had achieved success. He surely would listen.

A **LOW-TONED** musical note told of the passing of the hour and brought to Dale the necessity of leaving at once for the Council Hall. Giving himself a last careful scrutiny in the mirror he donned his Martian “khabba” and let himself into the corridor that led to the street.

Once outside, he hailed a passing aerial carrier and directed the pilot to the Council Hall. As the vehicle sped on its way he carefully inspected a sheaf of papers he carried in an inner pocket. Satisfied that they were in order, he returned them to their case and began an inspection of the city spread out below him.

Trinidal, largest city of Mars, and capital of the Martian Federation, always fascinated him. Unlike the buildings of earth, Martian edifices are fantastic things of sheer, sweeping beauty,
possessing none of that solid appearance that distinguishes terrestrial buildings. Mars’ lesser gravity allows greater freedom of height and slender symmetry. The council hall, looming ahead, was typical of Martian architecture; fully three thousand feet tall, its wide upper facades seemed perilously overbalanced to the terrestrially educated, who always gazed at such buildings in anticipation of their imminent collapse. However, they never fulfilled their unvoiced threat; solidly balanced on their foundations, they stood as firmly as the smallest of earth’s skyscrapers. The earthquake-free planet held them steady. Mars’ two moons were too tiny to cause the slightest tremor in her aged crust.

Sweeping now around the vast building, the carrier settled swiftly down into the open square between two wide-flaring, fragile appearing wings that graced the frontal portion of the graceful edifice. Seen from this vantage point, the building seemed ethereal, ready to spread its wings and soar away into the steely sky.

Other carriers were settling also, and Dale fumbled slowly while paying his own pilot, carefully scanning the features of each new arrival as he did so. Finally, the pilot whirred off in his vehicle and Dale walked slowly across the square to the entrance of the Hall. Reporters were showing their credentials to the man at the door and Dale watched closely as each reporter passed him before he took his place at the end of the line, satisfied that his credentials would prove ample. He had papers from a distant city, and had made sure that no other reporter was present from the paper he proposed to feign affiliation with.

The inspector glanced at him sharply as he presented his credentials and Dale held his breath momentarily as they were inspected.

“All in order.” droned the inspector. “Pass on.”

DALE hurried forward in quick relief, glancing swiftly about him as he passed through the doorway. He observed a group of reporters congregated before the entrance to the Council Chamber awaiting admittance and joined them, returning their perfunctory greetings politely.

“Might I ask the name of your paper?” asked one of them, “I do not seem to recollect having seen you before.”

“Certainly,” answered Dale suavely. “I am Jyn Darlan, representing the Milvovka Oracle.”

His questioner started in surprise. “Welcome to Trinidal!” he cried. “We do not often meet our fellow reporters from the distant polar city.”

“From Milvovka?” queried another reporter. “Why I thought Krundal had been given the reporting duties of the Oracle when he left Trinidal some years ago?”

“Krundal is our regular foreign correspondent,” returned Dale smoothly. “But owing to illness, he was unable to come to the demonstration, and so I was sent in his place.”

The reporter expressed his regrets: “I hope you will give him my best wishes for a rapid recovery upon your return?”

“Certainly. To whom shall I attribute them?”

“To Nan Dinsor,” the reporter introduced himself. “I shall be pleased.” Dale acknowledged the introduction with a slight nod of his head.

The sudden opening of the council door interrupted them and at the invitation of the attendant, they entered and took their seats in the section reserved for them. When all were seated
the doors were carefully closed and the demonstration was gotten under way.

As the chairman announced the meeting in order, Dale inspected with interest, a complex mechanism erected in view of all. A great many pieces of electrical apparatus lost themselves in the maze of wires and coils and tubes that surrounded them. The only article that Dale partially recognized was a large cone, shaped like the speakers of the public audio-newscasters back on earth. However, the fact, that the opening was filled with a large lens, puzzled him. Evidently the "loud-speaker" could not be for the production of sound. Endless rows of tubes betokened the extreme amplification to which whatever emanated from the speaker would be subjected.

Dale shifted his inspection to the inventor, one Dahl Jinsma, who had just been introduced by the chairman. He was struck instantly with the vague, sinister appearance of the man as he began to speak. Mentally, he classed him as a vicious, rapacious criminal, and sat bolt upright in his seat as the sinister meaning of this obviously strange demonstration grew more and more mysterious with this man's presence in this supposedly honorable gathering.

"GENTLEMEN," Dahl Jinsma indicated the mechanism Dale had just surveyed, "Gentlemen, there is the future greatness of Mars; the machine that shall realize the ambition we have all nurtured in our breasts since the inner planets established contact with us!"

He paused dramatically as a murmur ran from lip to lip around the entire assembly.

"There is the machine which will provide us with a new and younger home, rich in possibilities for further advancement of Martian greatness!"

Complete silence greeted this but every Martian leaned forward a bit in his seat, intent upon the next words of the speaker.

"Mars, as you all know, is doomed. Already the thinning atmosphere has caused the once blue skies to assume a threatening steely blackness and the deadly cosmic rays are coming through with greater intensity with each passing year. Soon all our vegetation will be dead beneath its killing effect. We could roof our cities with plenum to protect our people, but Mars cannot produce enough of that substance to roof over our fields; to protect our foodstuffs. Of what good to protect ourselves when starvation will overtake us in the end as it inevitably must in view of the fact that our neighbors in space will not and cannot supply us with food grown on their own fertile worlds? Of what good to roof our cities with the precious plenum if we are to starve? Will we destroy even our last resort of migration to another planet? For once plenum is worked, its ductility is destroyed and it can never again be wrought into new forms.

"We have therefore conserved our supply of plenum to build a war fleet of space ships, but until now, we have hesitated to do this. Earth, for it is she we must conquer, is too strong for us. The Earthmen have too many ships and they would sweep us from the space lanes before we got half way to the green planet.

"But now, this machine here will make it possible to defeat the Earthmen. Today, the last of a great fleet of warships is being completed in the caverns of Gheddo! After this invention of mine has done its work, that great fleet will leave its hiding place and proceed to earth to take over our new home, and few Earthmen will be left to stem the tide of our advance; such is
the power of my invention. While these remaining Tellurians are occupied with
the problem this machine will set for
them, we shall swoop down upon them
and finish its work!"

A loud cheer burst from his audience
and Dahl Jinsma was forced to await
for the tumult to subside. Dale sat
stunned as the Martians cheered. No
suspicion of this mental attitude, on the
part of Martians toward earth, had ever
been entertained by terrestrial nations.
That the Martians were anything but
sincere friends had never been suspected.

"WHAT?" Nan Dinsor shouted in
to his ear. "Does not this inspir-
ing news arouse our cold polar friend?"

Dale managed a sickly smile.
"It seems to me that it is a trifle
premature to cheer yet. I have not heard
what this strange machine is nor what
it will do to aid in the conquest of
the earth."

"True." returned Nan Dinsor in a
normal voice as quiet returned to the
hall. "But Dahl Jinsma is going to speak
again. We shall soon see whether our
cheering has been in vain."

The speaker again stepped forward
as a complete hush fell upon the as-
sembly. He resumed his discourse in
triumphant tones and Dale's heart sank
within him as the Martian's voice re-
vealed the dastardly power of the
machine assembled before him. As he
noted the eager faces of all present he
wondered at the method and character of
a human being who could conceal such
rabid feeling so effectively as to fool
completely, every alien race. Certainly the
thing revealed now by Dahl Jinsma had
long been in the minds of all Martians.
Dale listened with growing horror as
the speaker went on.

"On earth, there has developed through
the ages, a liking for sounds arranged
in some fantastic order called music. I
might liken music to our pleasure waves;
those subtle emanations of the emoto-
vox which impinge the emotions with
varied forces and combinations upon
our senses.

"For the past few years the Earth-
ians have exchanged their music for
sensuora. The exchange has not been
mutually received by either, or our sen-
suora waves are as grating to their
senses as the abomination of sounds they
call music are to us. In the main, our
relay stations have only broadcast earth
music after it has been sensuorically
treated, that is, other sensuory eman-
ations have been combined with the music
to make it more acceptable.

"Similarly, earth stations must pass
the sensuora emanations through a
dampening agency, as the Tellurian
senses react too strongly to the waves
in their full power.

"It is this reaction that caused me to
study the sensuora more closely in an
endeavor to find out why this should be
so. I have experimented long with vari-
ous Tellurian criminals, which I have
obtained through the aid of our efficient
governmental unit on the penal planet,
Cylla, and I have discovered that the
Tellurian emotional faculties are highly
sensitive; much more so than our own.
Indeed, so much greater is the sensi-
tivity, that, what to us is a mild emo-
tional stimulant, is almost unbearable to
them.

"Experimenting along this line, I
have produced single sensuoral emana-
tions which react so strongly upon the
nervous system of the Tellurian as to
cloud his reason, placing his mind com-
pletely under the dominance of the par-
ticular emotion that is aroused by the
sensuora.

"Thus by degrees I developed the
machine you see before you, capable,
not only of producing single sensuoral
effects, but several in combination. Its
effect has a range of perhaps three miles; that is, set up in the open, it can sway the emotions of an audience located within a three-mile radius.

"But of what use is a range of a mere three miles when we take into consideration the distance between earth and Mars. This was the problem that prevented me from making this invention known to you before this. I have not yet solved this problem."

A murmur ran through the assembly. Dahl Jinsma paused to allow his statement to sink in.

"I see that you begin to cast doubtful glances upon me," he resumed. "You wonder why I present my invention to you now? For the simple reason that I have come to the conclusion that no carrier wave powerful enough to convey the sensuora across the void of space other than that which carries our programs and messages to and fro now, the voidio, is possible. You well know that the voidio demands huge transmitting and receiving apparatus. It would be impossible for us to erect receivers on earth, to pick up the sensuora, in sufficient numbers to cover the whole surface of the globe. With a radius of three miles in effect, an impossible number would be necessary.

"We obviously could not broadcast the sensuora through the Tellurians' own stations, as the dampening agents would nullify the desired effect. Thus, the only method open to us is impracticable. I have failed in my search for a carrier wave that would necessitate no receiving apparatus. A receiver and rebroadcaster of enormous power are necessary. Where will we get such an instrument?"

Dahl Jinsma paused to produce a copy of the Trinidal Courier. He flourished it triumphantly before the eyes of the assembled Martians.

"This paper contains the answer to that question!" he declared. "Listen, and I will read to you an announcement printed this morning."

"Trinidarians will be interested to note that a unique earth program is to be broadcast tomorrow from station E231M. It is the first program of ultra-symphonic music produced by the Crystal Symphony, a new instrument recently invented by Jerome Sheldon of Toronto. It is claimed that this instrument will rival our own sensuora programs in so far as sound is concerned. The statement made to our correspondent declares that new heights in emotional influences, through the stimulus of sound, will be reached. A picture of the invention, which consists of a huge crystal sphere, is shown in the accompanying photograph. The city of Toronto may be seen spread out below the globe which has been suspended at a height of two miles directly above the city. It is interesting to note that the globe itself will be the only broadcasting agency. The globe is powerful enough to broadcast the program direct, the sounds being heard all over the planet with equal intensity through an invention which the inventor chooses to keep shrouded in mystery."

Dahl Jinsma laid the paper down before him as he continued:

"Gentlemen—that explains why it will not be necessary to find some means of broadcasting the sensuora of my new emotovox to the Tellurians; they themselves have supplied us with the means. When the program comes to station E231M, direct from the crystal globe, this invention of mine will transmit its sensuora along the connecting
voidio waves and, mingling with the musical waves, will be transmitted in turn by the globe to every living Tellurian. Owing to the subtle qualities in my invention, the Tellurians will never suspect the presence of the sensuora. They will attribute the disturbance which follows to the Crystal Symphony; that is, if any remain alive to determine the source of the disturbance!"

The assembly hall rang with applause as Dahl Jinsma finished. For many minutes it echoed around the horrified earthman, who, even under the influence of the horrible plot that had just been revealed to him, had the presence of mind to wave and shout as his fellow reporters were doing. Finally, when silence had been restored, the speaker again approached the platform.

"I appreciate your evident support, but I believe it will be necessary to give you a practical demonstration before I put the details up to you, to dispel any minor doubts as to the efficiency of my invention. You will watch closely now and note the effects of a very mild emanation of the emotion anger, placing a desire to kill, upon two Tellurian criminals obtained from Callisto."

Dahl Jinsma clapped his hands, and as two earthmen were led to an open place before the sensuora emotovox, he continued his explanations.

"In order to make certain that when the killing urge is upon them, they will not turn to someone with whom they are not emotionally akin at the moment, I will begin by using the emotional waves peculiar to friendship. It is very necessary that I use this combination, for, if I used the emotional waves of hate, they would seek to kill us."

Dahl Jinsma smiled evilly.

"We have made certain that these two will not have any vestige of friendship for Martians. Thus, when the killing urge is upon them, they will turn upon each other, being emotionally akin in their friendship."

"I might explain this better by stating that the sensuora does not produce emotions, but merely amplifies them; an emotion that does not exist, cannot be called to life. These men have no friendship for us!"—he paused, and again the evil smile caused Dale to shudder at its meaning—"due to certain measures which I have taken the precaution to inflict upon them, and, therefore, the emotovox cannot cause them to entertain any friendship for us. Thus they will turn upon only those for whom they have some intimate feeling when the urge to kill besets them.

"But watch now, as I am about to turn the sensuora upon them!"

Dale watched in horror as the machine bathed the two men in its invisible emanations. First, as the friendship emotion was turned upon them, they began to smile at each other. Then one of them began to shake the hand of his companion vigorously. Suddenly they both scowled and the handshaking was discontinued abruptly. Then, as the red haze of anger began to beat about the minds of the two, they turned ferociously upon each other, the growing desire to kill erasing every vestige of their momentary friendship. Suddenly a loud cry echoed in the hall as they sprang at one another, and as the emotovox poured forth increasingly powerful waves, they tore at each other in a frenzy of passion. Like raging beasts they fought there.

Dale began to smile as he saw great scratches and gouges appear on the naked bodies of the combatants as they bit and flailed at each other furiously. Satiated with the excitement of the scene, Dale rose to his feet. Suddenly one of the contestants, slipping in the blood that had begun to stain the floor,
fell prone upon his back, and, quick to take advantage of the opening, the other sprang upon him, one vicious snap of his teeth ending the life of the unfortunate one whose life blood gushed in streams from his severed jugular as the victor rose panting from his kill. Dale shouted in delight at the sight.

Then an expression of astonishment overspread his features as Dahl Jinsma turned off the emotovox. A convulsed shudder ran through him as he realized that the waves had been affecting him, although he had been out of their direct range. He glanced at his companions in apprehension to discover if his actions had betrayed him.

"Bravo!" shouted Nan Dinsor, in the tumult that suddenly arose. "So that convinces you, does it?"

Dale sighed in relief. His apparent feeling for the two convicts had not been suspected.

"I certainly am convinced," he replied, his voice still quivering from the emotions that had been aroused in him. "But to-morrow! It is incredible. The armies; are they ready? And has a sufficient quantity of ships been manufactured to carry out this conquest?"

"I am certain of it," affirmed Nan Dinsor. "Look. Dahl Jinsma is going to speak again."

Dale fixed his whole attention on the speaker as he resumed the platform. The victor of the fight, together with his victim, had been removed, but the bloodstains still remained, gruesome evidence of the power of the machine. Dale avoided the stains with his eyes as he gazed at Dahl Jinsma, who stood directly beside the bloody spots on the platform, pointing to them as he resumed his talk.

"By to-morrow night, those stains will be duplicated in every part of earth. Our warships, which leave Mars with the end of the broadcast of the Crystal Symphony, will finish the work of the sensuora and the survivors will soon add their blood to that of their victims to enrich the soil of our new home."

Dahl Jinsma waved his hand toward the council:

"Gentlemen, your task is to effect the consolidation of our victory, so that our claim on the green planet will be a reality according to the Interplanetary Code."

To the reporters he added:

"And you; I suppose you wonder why you have been called to hear this news? Of course you realize that we did not do so in order to have you print the news in your papers, but that you should be ready when the time comes to announce our victory. For none but Martians must know that it is a victory. Earth will be ours before the inner planets realize that a change has been made. It is your duty to give them the news immediately upon the fact. You will print the news in the morning papers, on the day after to-morrow. But you must print only what I am about to tell you now. No inkling of what we used to effect the conquest must reach the other planets; they must not even know that we ever did effect a conquest. The other members of the Interplanetary Federation must believe that Earthmen met with disaster through their own invention, the Crystal Symphony. You will announce that the Martian flag has been raised on earth immediately following the disaster. We take over the planet earth as our territory by right of priority. No other planet must know that we did this by other than precedence. The Interplanetary Code will assure us of our title if nothing leaks out of our coup. So see to it that the news reaches our own people and the people of the other planets to the effect that we take possession
of earth by precedence, following the total annihilation of the Terrestrials by their own hands!"

Dahl Jinsma ceased speaking as an interruption came. The signal that someone wished to enter, glowed brightly upon the door, and a sudden premonition of danger struck Dale, which crystallized as the voice of the doorman announced the belated arrival of another reporter and asked that he be admitted. At a signal from the head councillor, the door swung open and admitted a tall figure. Dale's face paled as he saw the newcomer. Nan Dinsor gazed in surprise.

"Why, Jyn Darlan, I thought you said Krundal was ill?"

Suddenly his eyes widened.

"So!" he shouted. "I see now why your actions were so peculiar. You are a spy!"

A quick motion of his hand, which Dale could not prevent, swept his facial disguise from him and he stood revealed to the assembly in his true guise, as a Terrestrial.

Suddenly, while the Council gazed in incredulous amazement at this spectacle of an earthman unmasked, Dale whirled and dashed toward the door. It was still open, but the way was blocked by the towering figure of Krundal, who had stopped in surprise at the sudden uproar. The Martian stepped quickly back to the doorway as he discerned the hurrying figure of the earthman. With a crash, the two collided. A stiff uppercut staggered Krundal for a moment, but he recovered swiftly and rushed with lowered head as Dale tried to make the doorway. Like an earth football player he plunged and Dale crashed to the floor with a thump and lay still.

THE moon shone brightly down upon the upper surface of the great crystal globe as it swung serenely above the city of Toronto, while its under side reflected in flashing sparklets the bright lights of the downtown section of the earth's greatest city, where millions of gay pleasure seekers now thronged the brilliant streets, while from where they sat, in the cool darkness of the park, two silent figures watched the full disc of the moon and the reflecting crescent enclosing the sparklets of the city lights that marked the position of the globe. The noise of the city came to them with a muted murmur. Occasionally they whispered to each other, but for the most part they were content to sit in silent contemplation enfolded in one another's arms.

"Isn't it beautiful, Jerry dear?"

Ina Pearsall broke the silence and Jerry thrilled to the sweetly feminine voice.

"Yes," he whispered. "Almost as beautiful as—"

The slight figure stirred within his arms and her face was suddenly revealed in the full light of the moon as she turned to gaze into his eyes. She seemed almost ethereal in its pallid rays. The deep, black pools that were her eyes, blue in the daylight, imbued her features with a strange beauty. The whiteness of her face was framed in an aura of silvery glinting hair, which glowed in the moonlight. Her red lips opened questioningly.

"As what?" they urged softly.

He gazed daringly into her eyes, knowing that his were hidden in shadow as he bent over her. Vainly she strove to pierce the shadows, but all that she could discern was the masterful sweep of his chin as it jutted into the moonlight, and the mass of brown, curly hair. He seemed to be considering.

"No," he said suddenly. "I was
wrong. It is not nearly so beautiful as you, darling."

Her eyelids lowered swiftly and he kissed them fiercely, ardently.

Gently she pushed upon his chin with a cool, little hand until the moonlight lit his face.

"My!" she cried. "The cold scientist has suddenly become very romantic. I had thought it was impossible."

He smiled.

"Not even a scientist can resist such irresistible charms."

"And not even a cold-blooded reporter can keep her mind on her business in the face of such ardor," she laughed in return, allowing his face to return to the shadow.

He chuckled.

"I'm sorry. I did bring you here to tell you more of the Crystal Symphony, didn't I?"

"At least that is what father sent me to interview you for. I wonder what he would say if he knew how the interview was progressing?"

"I think he would pat himself on the back."

"He does seem to want us to get married. He told me the other day that if I didn't hurry up and marry that Sheldon fellow I go around with, he'd have to throw up the sponge. It seems he is anxious to cut his reporting staff down a bit. I heard him tell the assistant editor that the Toronto Solar Post would lose its chief editor if his reporters didn't buckle down to business and forget that girl of his. But I've just got to do something. You have been so busy at that symphony thing of yours that you haven't had the time to so much as call me up on the visiphone."

She pouted prettily, and Jerry kissed her quickly.

"Well, you can tell him his troubles are over in the morning. Just as soon as I get this first concert across, I'm going to hustle you away from those reporter fellows. I've always wanted to see the Grand Canyon.

"NOW about that concert to-morrow. The first—"

He stopped as a small, firm hand covered his mouth.

"Never mind that now. I want to hear some more about the Grand Canyon. Dad's program can wait."

"I can easily see why your father wants to cut down the reporting staff. You're just a punk reporter, that's all; can't keep your mind on your business," he said drily.

"Oh, can't I? Just ask Dad about that in the morning."

"Maybe you're right at that. I've said more to one girl in a couple of hours than I ever thought I'd say to all of them in my whole life."

"And still you haven't said the most important thing yet."

"What is that?"

"You haven't told me how much you loved me."

"Naturally not," he said, and grinned as her slim body stiffened in his arms. "You couldn't expect a mere scientist to talk in such big numbers. What you need is an astronomer."

The thin crescent that was the Crystal Symphony broadcaster grew till it became a dim, fool moon against the lightening eastern sky as the brighter disc that marked the real moon sank toward the western horizon, before the faithful park bench was relieved of its burden.

From his bed, the chief editor heard the slam of a door as the first red rays of an early summer sun gilded the high floating morning clouds and he grinned to himself.

"I'll bet she hasn't got that program," he muttered before he again
drifted off to slumber, lit with bright dreams of a new place in the office of the Toronto Solar Post.

SEVERAL hours later Pearsall sat fidgeting at his desk, the rapid drumming of his pencil rivaling the clatter of the linotypes that came faintly up from the composing room. He glanced anxiously at the clock, whose long pendulum swung in slow contrast to the apparent impatience of the editor-in-chief.

"Damn!" he exploded. Furiously he grasped the lever of the visi-phone.

"Smithson!" he snapped. "That Trinidal report coming through yet?"

"No, sir." The face of the voidio operator was impassive.

"Don't sir me!" roared Pearsall. "If you waste any more time with senseless terms, I'll fire you!"

"Yes, sir." The face of the operator remained impassive. This was the seventh time his employer had called him about the Trinidal report. "I'll send it right up as soon as it comes in," he added.

"Send it?" bellowed the editor-in-chief. "You'll connect me direct on that wave or I'll know the reason why!"

The operator shoved down a key.

"All connected, sir."

"Right!" snapped Pearsall. "And see that the static is cut."

"Nullifiers on full, sir," said the operator.

"Keep them that way."

Pearsall swung the key over viciously and the visi-phone went blank. Again the pencil took up its impatient tattoo while the clock ticked slowly in latent accompaniment.

"Good morning, Dad." Ina’s cheery voice halted the antics of the pencil.

"How is my dear old snalper today?"

"Snalper?" Pearsall smiled as his bald spot received a resounding kiss.

"Don't you call your old daddy names." His voice failed miserably in its attempt to sound threatening.

"Ina laughed merrily.

"Don't you know what a snalper is?"

"Why, no," said Pearsall uncomfortably. "You know your father is only an ignorant newspaper man. You can't expect him to keep up with the current slang. What is it?"

"Why, it isn't slang. It is the Venarian equivalent for the boss. Translated, it means 'ogre'."

O H, I'm an ogre, am I?"

"Well, that's what the office boy said when I came in. He inferred that you had tried to eat him several times this morning. What are you atomizing at?"

Pearsall grinned.

"The little shrimp said that. I'll slap him. Well, the truth is, Dale has failed me for once in his life. I sent him on that Martian secret session job and he hasn't reported yet, and the session has been over for twenty-two hours." His voice took on a worried note. "I hope the lad hasn't gotten into trouble."

"Poor Dad," consoled Ina, dropping into his lap. "If that's all you're worrying about, forget it and give me a kiss. Dale can take care of himself. But what is more important, I'm quitting."

"Quitting?"

"Yes. Jerry and I have decided to see the Grand Canyon."

"You mean—"

"Yes."

Pearsall deposited his daughter on his desk and capered about the room.

"Hooray. Ina, my girl, you've saved the Solar Post. A month more of your reporting, and I would have had to be satisfied with the second best paper in the solar system. Now let the World crow. We'll show 'em some real news."

Ceasing his capering, he seated him-
self again and then he took up her case.

"I refuse to accept your resignation, at least not until to-night. I've got one more job for you. You pack your duds and camp right over at the symphony studio until that blamed concert is over, and if you let him out of your sight until the deed is done, I'll"—He left the threat unfinished. "Now get atomic, you little scamp. Oh, and by the way, here's your check in advance. You'll need some traveling clothes, to say nothing of a wedding dress."

Ina inspected the check.

"Why, you dear old snalper. This will only make the down payment on my wedding coronet."

Pearsall groaned,

"I was afraid of that. How much more do you want?"

"About a thousand."

Pearsall sighed as he made out the check.

"Well, I'm sure of one thing."

"What is that?" inquired Ina, carefully folding the check.

"That you aren't a snalper. You are an out-and-out scalper."

Unconsciously the pencil resumed its antics as Ina's laugh came floating back to him from the door. His grin widened for a moment and then faded as he glanced again at the clock.

A glance at the voidio tape assured him that no message was coming in, and the worried look on his face deepened.

"**DAMNATION!**" he muttered. "If that boy has come to harm, I don't know what I'll do. There isn't another reporter like him in the whole solar system, nor in a dozen other solar systems, I'll wager."

Suddenly he became aware that his pencil no longer tattooed in unison with the linotypers for the simple reason that the linotypers had ceased their clattering. With a curse he flung the pencil from him.

"Only fifteen minutes left, my boy, until the 'noon' goes to press." Unconsciously he addressed his far-away reporter aloud, as if he could bridge the gap of space with his ultimatum; an ultimatum that was rapidly becoming a battered prayer.

A hiss of air and the 10:15 edition slipped smoothly out upon his desk from the pneumatic tube that led up from the press room. Pearsall spread it open with a deft flip and ran his eyes over the front page. One item he read through in detail, glancing often at the aloofly ticking clock as he did so:

**INVENTOR OF CRYSTAL SYMPHONY GIVES INTERESTING SIDELIGHTS ON MODERN MUSICAL DEVELOPMENT**

In a recent interview, Mr. Jerome Sheldon, inventor of the new musical symphony which will broadcast its first concert to-day, made some interesting comments on his new symphony, and on music in general. According to Mr. Sheldon, to-day will mark the beginning of a new era in musical enjoyment.

Some six hundred years ago, in the sixteenth century, music entered its first era of development with the great symphonic masters who gave humanity those wonderful works of art whose deathless strains have lived and remained popular to the present day. But progress was slow, due to one great limitation; the fact that the only method of hearing symphonic orchestras was by direct attendance; and that in poorly acousticated auditoriums. The majority of the people received no
opportunity to hear any music at all, except that which they themselves produced.

The second great era dawned with the invention of the radio. Under the stimulus of its wide scope of listeners, such great masters as Leopold Stokowski and John Philip Sousa, acting in conjunction with the best radio and acoustical engineers, gradually perfected the world-wide broadcasting of symphonic and orchestral music, until the numbered thousands of music lovers grew to uncounted millions. Music was indeed coming into its own; and with it came an ennobling of the entire race. Man has ascended to great heights on the wings of the Muse of Harmony.

And now, according to Mr. Sheldon, who is himself an accomplished musician, music is about to enter into its third great era of development. Prior to this time, music has consisted only of sounds ranging within the vibration frequencies commonly audible to human ears. Sound vibrating at sixteen cycles per second constitutes the lowest audible note perceptible to average human ears. Similarly, the highest generally audible note vibrates at 16,380 cycles per second. There are instances on record where human perception has exceeded these limits, but they are few and far between. The Crystal Symphony will exceed these limits in its broadcasts, automatically duplicating the refrains and chords far up into the radio range of frequencies, which begin where sound leaves off, at 16,380 cycles.

Mr. Sheldon believes that the human perceptive qualities will be able to sense these higher cycles. He points to mental telepathy and the so-called sixth-sense to substantiate his theory. It has long been thought possible that mental telepathy is merely a sound expression or vibration emanated by the brain, which upon the discovery of a means of amplification, would be found to be vibrations within the radio range of frequencies. Many persons can now read others thoughts with great facility and it is Mr. Sheldon's firm belief that this can be done in no other way than by the reception of some vibration frequency. And certainly it is logical to believe that this frequency is contained in the range of what is commonly called radio frequencies.

However, Mr. Sheldon sharply differentiates between radio frequencies and the frequencies of his invention. The Crystal Symphony itself will not emanate radio waves; radio waves, he points out, are not sound waves, whereas his symphony will emanate only sound waves although they will, in their higher frequencies, vibrate at radio wave rates.

When asked what effect these vibrations would have on radio reception, Mr. Sheldon admitted that he was uncertain as to what would happen. He advanced the theory that radio receivers might respond to the sound waves and bring to listeners some entirely unexpected result.

Mr. Sheldon refused to divulge the method by which the sounds would be audible to all humans in all parts of the globe with equal intensity, although he hinted that the Heaviside layer played a part through a method of multiple resonic reflection. Scientists the world over would be listening, as perforce
they must unless they remain in soundproofed rooms, in an effort to raise the curtain of mystery Mr. Sheldon has thrown over his method of sound broadcasting at equal intensity over an infinite distance.

"BONG!" The striking of the half-hour punctuated the item, and Pearsall sprang to his feet with an exclamation of disgust. He pressed a button and the noon edition began to rattle off the presses.

Again resorting to the visi-phone, he called to the voidio operator:

"Smithson!"
"Yes, sir."
"Break connection. Shoot the Trinidal report to the composing room as soon as it comes in. We'll have to put it in the 2:30 run-off."
"Yes, sir."
The visi-phone darkened.
"Danny!"
The office boy appeared on the run.
"I'm going out to lunch. Tell Blackburn to watch that Trinidal report, and keep Lynn on that Crystal Symphony broadcast. Tell him to get some action photos of the symphony in operation. We'll run them in the feature in the Sunday supplement to-morrow."
"Yes, sir."
"And I won't be back until two. I'm going to listen to the broadcast at one."
"Yes, sir." The office boy turned to go.
"Danny!"
"Yes, sir."
"If anything important comes through on Scott, you can reach me at Marcey's."
"Yes, sir."
The office boy stared for a moment at his chief's retreating form.
"What's he stewing about?" he wondered. "Don't he know yet that Dale can take care of himself?"
He strode over to the visi-phone. The radio photographer's features appeared on the plate, and an expression of surprise flashed across his face as he noted Danny's freckled face.

"The big noise wants ya to get a flock o' action shots of the Symphony at one," directed Danny.
"Oh, yeah? I wonder what he'd say if I handed him an action shot of you usin' his private visi-phone?"
"He'd tie the can to ya for wastin' film," laughed Danny, and Lynn grinned in return before he broke connection.

D A L E woke to intense darkness and a throbbing headache. Cautiously he raised himself to a sitting posture and felt of the large lump that graced his forehead.

"Whew!" he whistled. "That guy must have been one of the famous Four Horsemen of Notre Dame, except that he's kind of spry for his three hundred odd years. Boy, now I know why football was outlawed two hundred years ago. Where the heck am I, anyhow? I never knew a place could be so black."
"I've seen blacker," came a voice.
Dale started violently.
"Pardon me," he gasped. "I didn't know we had company. Who are you, if I may ask?"
"Just one of Dahl Jinsma's experimental subjects," came the answer from the darkness a few feet away.
"Not the survivor of that hellish scrap in the council chamber?"
"How do you know about that?" The voice held surprise.
"I was one of the reporters present at the demonstration."
"But those guys were all Martians. You're an Earthman. I saw that when they brought you here."
"Correct you are," returned Dale.
"But I make a passable imitation of a Martian when I'm all dressed up."
"How'd they happen to snap you?" The voice held interest now.

"I had myself represented as a reporter from Milvowka, and so, when that particular reporter whom I was supposed to be, walked in, one of us had to renig."

The voice chuckled.

"From what I saw of you when they carted you in, you reniged in great style. I'll bet some of those fellows are taking headache tablets now."

"I'm sorry to disillusion you," said Dale sorrowfully. "But I got in only one lick before they tipped me on my dome. However, from the way my head feels, it was a passable lick at that."

"Well, maybe we'll all have a chance to make that up, pretty soon," said the voice. "They'll be bringing us our daily meal down in a few minutes and I'm all ready with a nice length of lead pipe. I pried it out of the wall while you were out. I noticed it in the light of the torches when they brought you down. When the guard sets my slop can down, I'm going to bring it to his attention—forcibly."

"Anything I can do to help?" New hope sprang into Dale's voice.

"Well, they've got you on a long chain. If there's two of 'em, it'll be up to you to get the one I can't reach."

"OKAY."

Dale eagerly tested the length of his chain. Doubled, it made a good four-foot length. He could give quite a swing with that.

"Quiet!" warned the voice suddenly. "I think they're coming."

Tensely the two waited in the darkness.

Then, dimly, Dale could discern the outline of the door to the cell in which they crouched. The red light grew brighter as the torch bearer came down the corridor outside.

"There's only one of them," whispered the Callistonian convict. "I can hear his footsteps."

Outside, the clanking of the guard's armor became audible and then ceased as he reached the cell. There was the sound of two pails being deposited to allow freedom in affixing the torch to the wall. Then grasping the pails, the guard entered, stooping low to avoid the doorway. He peered at Dale.

"Ah. I see our clever reporter has regained his senses. I am glad. Dahl Jinsma was worried for fear he would not be accorded the pleasure of entertaining you as befits your audacity. He will be pleased to learn that you are not seriously injured. But here is your dinner. Eat hearty—you'll need all your strength."

Carelessly he dropped one of the pails beside Dale and, going over to the convict, deposited the other together with a vicious kick.

"You, also," he growled. "After today you will not need to eat. There is yet a final experiment to make."

He turned toward the doorway and, as he did so, the prone figure behind him sprang swiftly to his feet and the length of lead pipe whistled as it descended.

Dale shuddered as he wiped a spatter of blood and a bit of something that was not blood from his face.

"I guess that will keep him quiet for a while," he remarked.

"For quite a long while," agreed the convict.

"Now what do we do?" asked Dale.

"Well, I'm going to eat."

"Eat?" Dale shuddered again.

"Yes. If we've got any fighting to do, I want to do it on a full stomach. And, besides, this is the first food I've seen in thirty-six hours."
“Go ahead,” said Dale. “You can have mine, too. That dirty mess lying there kind of spoils my appetite. But make it snappy. They’ll be missing this fellow soon.”

“We’ve got time,” returned the convict. “He always waits to take the pails back. You can unlock our chains, though, while I finish this. You’ll find the keys on the door departed.”

Dale removed the ring that hung from the belt of the dead Martian, and, after trying several keys, his fetters sprang open. Quickly he released his companion, who continued to wolf down the contents of both pails. While he waited, Dale reconnoitered the corridor and retrieved the torch from its niche in the wall. When he returned, the convict had finished his meal. Dale watched curiously as he carefully wiped his mouth and hands on a piece of cloth torn from the dead man’s shirt.

“You don’t look like the average run of Callistonian criminals,” he remarked suddenly. “What did you do to get here?”

The convict laughed.

“Interplanetary Power Company politicians; I opened up a radium field on Pluto and had the bad fortune to be observed by one of Power’s spies; when I got back to earth, the claim was nailed down. That wasn’t enough, though, so they framed me with a gang of Communists for interplanetary conspiracy and I got a ten-year rap. They knew I could beat ‘em, if they let me run around loose. If I ever get out of here, they’ll hear from me.”

“I wish you luck. But come on, we’ve got to be leaving.”

“Wait’ll I get my lead pipe. We might need it.”

Quickly he secured the pipe and swung it viciously about several times while Dale watched.

“By the way, what’s your name?” queried Dale.

“My friends call me ‘Slug,’” grinned the convict. “The legal name is Emmerson.”

Dale gasped.

“Not the Emmerson that—”

“Yes.”

“Sweet shades of Luna!” Dale extended his hand. “Glad to meet you, Slug, and if you get back to earth, count me in on the fireworks. Dale Scott is my name and I hold title as the best reporter on the Toronto Solar Post’s staff.”

The two men shook hands heartily and then proceeded down the corridor, Slug in the lead. For several moments they proceeded without encountering anything other than branch corridors. Slug held steadily to the main corridor until it suddenly debouched into a round chamber. In the center of the floor were several large tubes that led upwards into the blackness.

“Elevators,” whispered Slug. “They go all the way to the roof. I think that is the best way to go; once on the roof we can hail a sky taxi.”

“Are there any guards?”

“Plenty. And I’m willing to bet we don’t go very far in these elevators before they stop us; in fact, when the guard up above sees this elevator go on up, he’ll know it isn’t the fellow who brought us our meals and we’ll find ourselves stuck somewhere in between floors when he cuts the power.”

“Then why not step out on the first floor and polish off the guard before we go on?”

“Too risky. We don’t know how many guards they have there. I think the best thing for us to do is to go right up to the second floor and leave the elevator there. If we get to the other set of elevators at the other end
of the building, we can go the rest of the way in them."

"Okay. Let's get going."

Quickly they stepped into one of the elevators. The door slid shut and Slug pressed the button marked "Two." Dale gasped as they shot suddenly upward at terrific speed, and almost before he had time to take a breath, the elevator came to a halt.

"Damn!" exclaimed the convict, and the elevator shot up two more floors. Hurriedly they stepped out into the corridor and Slug reached back to press the button for the roof. The empty car shot upward as the door slammed shut with a sighing of air.

"Why did we go up further?" asked Dale.

"Because the guardroom is on the second floor and the place was swarm- ing with guards. However, I don't think we stopped long enough on this floor for them to notice it. They'll have a merry chase up the stairs to the stalled elevator. But come on, we've got to get out of here before they start coming up the stairs. Here, into this side corridor."

A moment later they stopped their flight, breathless, and paused for a moment.

"I think we are safe here," said Slug.

"I am sure of it," said a voice behind them.

Dale whirléd in his tracks, but not as quickly as his companion. He was just in time, however, to see the heavy lead pipe strike the guard who had accosted them from a side corridor, stunningly in the head.

"Pretty throwing, that," Dale remarked, after he had recovered from his surprise.

"Not bad," admitted Slug modestly. "I learned that trick on Mercury. We always carried a club there in readiness for those dirty Mercurian robbers. They always attack from the rear, and that silly I. C. law that forbids the carrying of guns made some other method of protection necessary, so we learned to throw clubs, caveman fashion."

Dale bent over the stunned guard.

"Well, we're going to break that I.C. law right now. This fellow has two excellent automatic detontite guns."

Strapping one about his own waist, he handed the other to his companion.

"These may come in handy."

"You bet they will. But come on. We've got to get down to those other elevators before this fellow comes to and directs the chase down this way."

They proceeded without further incident down the whole length of the building.

"I wonder where all the people are?" remarked Dale.

"Nobody here now but guards. Council is not in session at this time of the year. Yesterday's session was special, and, besides, this building is taboo for anything else. If this was the law building, we'd have been trampled in the mob by now."

"Well, here are the elevators. We seem to have beaten the guards this far at any rate."

"We'll meet 'em on the roof," said Slug grimly. "They've had time to nearly reach the top by now. However, it'll be a race. Climb in."

Dale scrambled in and grasped the rail.

"Let her go," he nodded.

"Okay. Hold on."

Slamming the door, Slug pressed the top floor button.

"We won't take a chance on busting right up to the roof," he remarked as the car surged upward. "We'll stop on the top floor and take the stairs. They'll be expecting us to come up in the elevator and won't watch the stairs."
"Right. And when we get up there, then what?" questioned Dale.

"We've got sixty shots apiece in these guns." The convict's face was grim. "The worst we can do is to take some of the dirty double-crossers along with us when we go out."

"I'm not aiming to go out," said Dale. "I've got an important report to make to my papers."

"Well, if we get away, I'm heading for earth and the Power Company. I've a present to hand to those babies."

"LOOK sharp now!" warned Dale. "We're almost to the top."

With breath-taking suddenness, the car came to a halt. The corridor outside was deserted. Swiftly they left the elevator, Slug in the lead.

"This way," he murmured, leading the way to the stairway, which also proved to be deserted.

"Looks like a cinch," whispered Dale. "Looks more like a trap. Go slow when you poke your head out on the roof. They may be waiting for us."

Cautiously the two fugitives crept up the stairway to the open doorway of the penthouse that topped the last flight. Dale advanced slowly to the invitingly open doorway.

Suddenly he stopped. Just beyond the doorway, a guard crouched behind a ventilator, evidently intently watching the elevator entrance. His back was toward them, and, as Dale spied him, he talked into his portable telephone.

"No signs of the escaped prisoners. They must have gone up by your side."

"By Jupiter!" whispered Slug. "They haven't bothered to send any more guards over to this side. I suppose they think we couldn't reach these elevators. Luck is with us."

"You stay here," whispered Dale in return. "I'll sneak out and try to knock this fellow out. We don't want any noise."

"Okay. Hop to it. I'll guard your rear."

SILENTLY, Dale edged through the open door and, dropping on all fours, crept along the side of the penthouse.

From his concealment, Slug peered sharply about. Suddenly he drew a deep breath and his face went white, quickly becoming very grim.

"A trap!" he muttered. "Well, at least they haven't seen me yet."

He watched closely the spot where he had momentarily seen a peering Martian head. Now, as he glanced around, he noted more Martians. They were concealed behind every possible concealment. The guard with the phone was only a blind to lure the fugitives forth. It was too late to call Dale back now. Slug raised his pistol to the ready.

"Let 'em start something," he muttered. "It's going to be costly."

SUDDENLY the guard with the phone spoke a single word into his instrument. Instantly, guards swarmed from their hiding places. Slug saw Dale dart aside and flop down behind a skylight. He grinned.

"He's a good reporter all right, and a good fighter, too," he said to himself. "He had a place all picked in case of trouble. That's quick thinking."

Quickly the Martians surrounded Dale's little stronghold.

"Surrender," cried their leader. "Come out of there. We've got you."


At a command, the guards rushed forward. Dale sprang into action and his gun began to spit. Slug watched from his concealment as they attacked.

"Eighteen of 'em," he muttered. Then under cover of the uproar which now
reigned on the roof, drowning the sound of his guns, he began firing with unbelievable rapidity. The almost inaudible pop-pop of his weapon wreaked fearful havoc and nine of the attackers lay sprawled on the roof before they realized that they had more than one man to deal with. They turned incontinently and beat a retreat. Dale stood erect and added his fire to that of his hidden companion. Only seven of the guards reached their hiding places.

Dale again flopped down behind his concealment, and the convict could see his grin from where he stood in the penthouse. He called softly:

"Make a dash back here while I cover you."

"Come on. We'll have to beat it around some other way. We're deadlocked here."

Dale grinned in reply and suddenly dashed for the doorway. Slug fired twice as he ran, and Dale reached the entrance safely.

"Got two more," said Slug. "Come on. They'll hot-foot it after us when they see us go down."

A shadow fell athwart the roof.

"What's that?"

Dale peered from the entrance. Outside, a ship of the Martian guard settled to the roof.

Slug grasped his arm.

"Come on. It couldn't be better. We'll let 'em see us beat it down the stairs. Then we jump into the elevator and go back up. Dollars to doughnuts they all chase down the steps. Then we step out and take a ride in a nice guardship."


He darted swiftly past the doorway to the stairs, followed closely by the convict. On the roof, the rush of footsteps told of the chase.

Taking the last flight in a flying leap, the two fugitives dashed around the corridor and into the elevator which still stood with door open. Quickly the convict slammed it shut and the elevator rose slowly as he used the manual controls.

"You watch and see if there are any of them left out there on the roof." He spoke quickly.

"COAST clear," returned Dale as the top of the elevator passed the roof line.

Swiftly the car finished its ascent and the two Earthmen dashed out and ran for the guard ship in great thirty-foot leaps. Behind them, a shout told that they were discovered. A lone guard came swiftly from the penthouse, calling lustily for his comrades. Quickly Dale and Slug scrambled toward the plane. A shot from the advancing guard whistled past them; another and Slug grasped his shoulder and staggered. Quickly Dale heaved him into the plane and slammed the door. Guardsmen were now pouring from the penthouse, brought back by their companion's cry, but they were too late.

The motor of the guard ship purred softly as Dale closed the ignition switch, and with a rush the ship gathered speed in its swift ascent until the guardmen on the roof below looked like tiny specks.

"Level off!" gasped Slug. "We've got to get out of here."

"Okay," returned Dale. "Are you hard hit?"

"No. Just nicked me. There wasn't enough impact to explode the bullet."

"Good!" exclaimed Dale. "We'll be safe in a few minutes now."

"Not within a thousand miles of here, we won't."

"We'll be a good deal further than that as soon as I reach the Voidio Transport."
"You can't do that," protested Slug, pausing in the somewhat difficult operation of binding his wound. "They won't ship us through. It's strictly against the I. C. law to ship anything but freight by voidio."

"This particular operator will, or I'm a Plutonian," grinned Dale.

"You'll be leading a parade feet first if he don't," grinned Slug in return. "However, you're the doctor."

Slug had finished his crude job of bandaging as Dale finally slanted the ship down to a huge building on the outskirts of Trinidal. Deftly, he landed the ship on the roof and cut the motor.

"Need any help?" he asked, eyeing Slug's wounded shoulder as they stepped from the ship.

"No, I can manage. You just go ahead and persuade that operator that you're the boss. I'm right behind you."

"Come on, and I'll show you how easy it is. I don't work for the solar system's best newspaper for nothing."

Dale led the way swiftly to the elevators and soon they stood on the ground floor. Dale led the doubting Slug to the transport room, where he was stopped by a guard. He showed a small card produced from an inner pocket, and the guard nodded and stepped aside. Quickly Dale walked up to the operator's desk.

The operator looked up.

"WELL, I'll be damned!" he shouted. "If it isn't Scotty. What in the devil are you doing here? And where did you get those emblems of carnage?" He pointed to Dale's battered head.

"Never mind that now, Jimmy. We've got to get to earth right away. What time is it now?"

"The operator gasped. "You can't—"

"What time is it?"

"Thirteen-twenty."

"No, no! Earth time."

"Why, lessee. It's just twelve-forty-six, but—"

"Cripes," muttered Dale. "We've got just fourteen minutes."

He grasped Jimmy by the arm, unconsciously lapping into his native language as he talked earnestly.

"You're going to break the I. C. laws all to heck right now, Jimmy, and ship both of us to earth without bothering about that fool law that forbids travel by voidio. I've just escaped from the Council Hall. That special session yesterday was convened to announce the most dastardly plan to wipe out the entire population of earth by means of an infernal new sensuro invention that will let murder loose. The slaughter is to start at one. We've got to be in Toronto before that."

The operator's face took on a worried look.

"The best I can do is get you there by sometime between one and one-fifteen."

"Well, do your best." Dale returned to the Interplanetary language.

"You bet. Come on. Hustle into the sending chamber."

He led the way to a small room and indicated several boxes. "Sit on those until the green light flashes. Then you will have arrived. How you will explain to the receiving operator, I don't know. I'm not going to signal anything coming through, or he might try to cut me off from the other end. This is outside shipping hours."

The door slid softly shut as the two Earthmen seated themselves for the passage.

For a moment nothing seemed to happen. Then a queer vibration began to make itself felt. For many minutes the vibration quickened, until it reached a rate where human nerves were too gross
to register its effect. At last the sending wave was reached.

Suddenly a lurid violet light filled the room. Nothing was discernible except this violet glare. Then, as suddenly as it had come, the light was gone, and in its place a small tube above the door flashed in green flickerings.

Dale strode to the door and slid it open. As he stepped forth, the receiving operator whirléd from his instruments. His eyes widened as he beheld the two strange figures, and then flashed in anger.

"What is the meaning of this? How did you get in that chamber? Don't you know that transportation by voidio is against the Interplanetary Code? From what station were you sent?"

"WHOA," grinned Dale. "Take a look at this card and call a plane right away. It's damned important."

The operator stared at the card and his voice changed.

"I'll have to get authority to let you through. Even the E. S. S. can't break the I. C. laws that way. What's the trouble?"

"What time is it?" interrupted Dale.

"One-ten."

Dale led the operator over to the window.

"See that globe?" He pointed to the Crystal Symphony broadcaster.

"Yes. They're broadcasting a program from it right now. I would have liked to listen to it, but I couldn't get off, and this is an insulated building."

"Well," said Dale grimly, "in a few minutes, now, if I don't prevent it, that globe is going to start broadcasting something that you won't need a receiver to get, nor will the insulation of this building stop it. The Martians are going to broadcast murder from that globe by means of unfiltered, greatly amplified sensuora."

"The hell you say!" gasped the operator. "Are you sure?"

"As sure as I'm an Earthman. Now do I get a fast plane?"

For answer the operator preceded the way to the elevators that led to the roof.

"My plane is on the roof. It is as fast as any and you'll save time by taking it."

"Right. Thanks. I'll see that you get something out of this."

"Just stop that broadcast and I'll be satisfied."

But Dale never heard the last of the operator's wish. He was already half way to the roof.

Slug was right on his heels as he clambered into the heavy, armored, speedy delivery plane, evidently regularly used to transport valuable articles. Dale gazed at him in a slightly puzzled fashion. Slug forestalled the words that hovered on his lips.

"No use arguin'," he said quickly. "I'm in on this to the finish, and it will take more than one of the smartest reporters in the business to stop me. An' besides, if I stay here, I'll land back on Callisto in short order."

Dale grinned.

"All right, it's your funeral. Maybe before you're through seeing this thing out, you'll wish you were safely perched on this roof, seeing it out from a distance."

"YEAH. An' if I stay here, I'd kick myself for missing all the fun if something exciting did happen."

"All right. Open the hangar doors."

As the heavy insulated doors swung open, a flood of music suddenly surrounded them, coming seemingly from all directions at once. Its inspiring strains made Dale's heart leap faster as he shot the heavy ship into the air.

"Boy, ain't that swell?" breathèd Slug.
"You bet it is!" returned Dale enthusiastically. "But if you don’t want it to be your funeral march, you had better strap one of those parachutes on in a hurry. Then you can hold her steady while I put one on."

"Okay," Slug grunted as he complied. "What are you plannin’ to do?"

"Well, if we’re lucky, we’ll bail out just before the main ruckus."

"You mean—"

"Yes. It’s the only way; not exactly the politest, but the quickest."

"Right. Here, get your chute on while I hold her."

Dale turned over the stick and began to don his chute. Suddenly the plane dipped and then leveled off. He turned in surprise to see Slug lock the controls and turn swiftly.

Dale’s eyes widened as he noted the anger flaming in the man’s eyes. He jerked the last strap of his chute viciously. He’d show this damned convict where to get off at. The convict was advancing now, and Dale braced himself for the attack.

"Come on," he taunted. "You dirty yellow lizard. I’m going to knock you clean out to Pluto where you belong."

"Oh, yeah?" Slug grinned evilly.

"When I get through making mincemeat outa you, you’ll resemble a—" He terminated the words abruptly with a vicious rush. Dale side-stepped quickly but not quickly enough. A wild swing caught him a glancing blow aside the head and he spun like a top and crashed to the floor amid the wreckage of a row of seats. The world spun dizzily before him and momentary star-shot blackness obscured his vision.

Insistently through the blackness, a voice seemed calling, "The globe." Realization of the meaning of these words came to him suddenly and he staggered to his feet. As his vision cleared he sprang aside once more just in time to avoid another rush. Funny how that sock on the dome had silenced those sensuous emanations. He’d have to polish off his opponent in a hurry, or—Another rush found him prepared and, stepping quickly forward, he planted a stinging blow to his companion’s jaw. A cry of pain was his answer, and the convict swayed groggily. Carefully timing the next blow, Dale swung hard for the chin of the dazed man and, with a resounding smack, Slug hit the floor and rolled among the débris of the shattered seats and lay still.

“So much for that!” muttered Dale, turning to the controls.

THE dull glow of tubes and occasional bright flash pictures on the radio-photo “still-shot” screen, coupled with the whirring buzz of the tele-camera and the sharp click of the still-shooter filled the radio-photo studio of the Solar Post with a kaleidoscopic mixture of color and sound.

The Solar Post’s photographer sat listening for a moment to the exquisite, soul-stirring music that emanated from nowhere and everywhere.

"Boy! What I wouldn’t give to have Molly out in the park with that sort of music for an accompaniment! I’ll bet she’d say, yes, in a minute."

He turned again to watch the great screen that depicted the huge Crystal globe that was producing these entrancing strains. A dim flickering, as of light just on the verge of the visual limits of frequency, was the only evidence to the eye that the great globe was indeed broadcasting the music that was giving a new thrill to earth’s listening millions.

His glance strayed to the smaller screen that depicted the activities in the studio of the Symphony itself. He watched interestedly as the inventor’s hands strayed over the gigantic key-
board. Each of those keys marked the sounding of a separate refrain, duplicated in many different frequencies at varied combinations. Skillfully, the straying hands wove together the chords of the second number on the program, a stirring march of the best of old march masters, John Philip Sousa. Lynn sat spellbound as the familiar music took on new glory, new meaning, through the influence of the ultra-frequency notes of the great symphony.

“That Sheldon fellow sure knows his stuff!” exclaimed Lynn. Suddenly he leaned forward, as his eyes caught a flying speck upon the great screen. What was that ship doing in the air. He gasped as the hurtling plane wobbled crazily in its course.

“The damn fools. They’ll crash into the broadcaster if they aren’t careful!”

He watched anxiously as the plane hurtled on, to disappear off the screen as quickly as it had come on. He sighed in relief.

“I’d hate to pay the fine that fellow is going to get,” he muttered, feeling strangely incensed at the actions of the strange plane.

Once more he turned to the screen that revealed the interior of the symphony studio. His eyes widened at what he saw.

“What in Pluto—”

The inventor’s hands still roved over the keyboard, but now, they jumped with vicious jabs and the music from the broadcaster seemed to howl and shriek in demoniac rage.

Lynn’s eyes blazed.

“Give it hell!” he shouted aloud.

His anger-filled eyes narrowed as a new figure appeared on the screen. It was Ina Pearsall. She held a small metal bar in her hand and as she crept stealthily upon the unsuspecting operator who was now pounding the keys in a frenzy, the radio-photographer shouted words of encouragement to the creeping girl, unmindful of the fact that his shouts were inaudible outside of his own studio.

“Kill him!” he screamed.

Grasping his own footstool, he began to swing it wildly. Casting about for something to vent his own rage upon, he spied the still clicking cameras. A vicious sweep of the stool and the telecamera spun in ruin to the floor. Lynn shouted in glee and rapidly proceeded to demolish the remaining cameras.

Having finished this mad destruction, he turned again to the screen. The creeping girl was now upon the frenzied musician. Suddenly she rose on her toes and brought the bar down with stunning force. The music shrieked in wild crescendo as the stricken inventor sprawled across the keyboard. With a whoop of joy, Lynn flung his battered stool from him. As he whirled he caught a glimpse of the larger screen.

“There’s that damned plane again,” he howled. The yell took on an exultant note as he saw the plane head straight for the globe.

“They’ll be killed.” He shouted gleefully.

Suddenly a cry of disappointment broke from his lips as two white flecks blossomed out and gently wafted their burdens earthward.

Lynn rushed for the great screen and then paused in stupid astonishment as the hurtling plane crashed into the globe. With startling suddenness, the wildly screaming music ceased. His ears ached in the sudden silence. Dumbly, like one who is wakened suddenly, he gazed about the studio, first at the wreckage of the cameras and then at the still functioning screen that pictured the symphony studio. He stared in surprise.

“I’ll be a Martian’s uncle!” he exclaimed. “First she brains him and then
JEROME SHELDON opened his eyes in the trim whiteness of a strange room. Curiously he gazed about, and then struggled to a sitting position. Gingerly he felt of the bandage that swathed his painfully throbbing head.

A rush of footsteps caused him to turn his head.

"Oh Jerry! I'm so glad you've come to. I was afraid you were going to die."

Jerry disentangled himself from Ina's arms.

"I don't feel very dead," he said ruefully. "But what are you crying about, sweetheart?"

He turned suddenly as a familiar voice came from the doorway.

"I'd pretty near decided to bust into tears myself, you old scoundrel. You've been lying there doggo for so long, I'd begun to figure you'd never come out of it."

"Dale!" gasped Jerry. "I thought you were in Trinidad?"

"I was," returned Dale, "but I left in a hurry, and I guess I got here kind of late, although I did manage to smash up the crystal symphony before the death list mounted too high."

"Death list?" queried Jerry sharply. "And the Crystal Symphony? What's this about smashing it? If harm has come to it, someone is going to pay dearly!"

"Whoa." admonished Dale. "I can see where this is going to take a lot of explaining."

"You can bet your sweet life it is!" agreed Jerry dangerously. "You'd better start first with how I got here and where I got this." he indicated his bandaged head.

Dale grinned.

"That's the easiest one to answer. Ina gave that to you. Sort of a love tap, I guess."

Jerry gasped and Dale stared in dismay as Ina burst into tears.

"Doggone it." Dale muttered in dismay as Jerry gathered the sobbing girl to him and soothed her to quietness.

"Where in the dickens has my reportorial diplomacy gone to?"

When Ina had ceased her sobbing, Jerry nodded to Dale to continue his story. He listened while Dale recounted the story of his assignment and his unmasking in the Council Hall, his face growing white as the story unfolded.

While Jerry listened, two gentlemen argued on the steps before the hospital. They ceased for a moment as a tall figure approached and one of them accosted the stranger.

"If you don't mind, I'd like to have you do me a favor."

"I'm really sorry," the stranger declined, "but I haven't the time. I must see an injured friend here and then catch a ship for Pluto."

"Whom are you going to see? Maybe you are bound for the same patient as we are."

"I see no harm in answering that question. I am intending to visit the injured inventor, Mr. Jerome Sheldon."

"GOOD. Then you won't mind acting as a witness for his wedding while you are up there?"

"Say!" gasped the stranger. "You aren't Ina's father, are you?"

"Huh." said Pearsall. "Do you know my daughter too?"

Dale had just finished his story when the three men entered the room.

"Father!" gasped Ina.

Pearsall shoved his companion forward.

"Marry 'em," he said shortly.

The clergyman glanced at Dale. "You will act as a witness?" he asked.
"I shall be pleased."
Several minutes later the ceremony was completed and Pearsall shooed them from the room, leaving the newly wedded couple to themselves. Outside, he wiped his brow and sighed in relief.

"Now if she don't try to finish the job she started in the studio, the Toronto Solar Post is due for a long era of peace and serenity."

He paused and glanced at his watch.
"And now, young man," he addressed Dale, "I'd like to know where that report is on the Martian special session?"
"Why not read the papers?" suggested Dale. "They've been full of it for the last three days."

The editor-in-chief of the Toronto Solar Post grew red, then purple.

"Say sir when you speak to me!" he roared. "I'll have you understand that when I give an order, that order is to be filled. That little oversight will cost you just two months pay. I'll teach you to give your scoops to our rivals."

"PARDON me," interposed Dale.

"Will you wait here a moment while I phone? I want to call Shapleigh, of the New York World on a little business matter."

"You call Shapleigh and I'll knock your block off," sputtered Pearsall.

"I might consider abandoning the idea—" suggested Dale suavely, "—for a consideration."

Pearsall collapsed.

"All right," he muttered helplessly. "How much will it cost me?"
"About a thousand a week."

A thousand a week?" he roared.
"For what?"
"For the quickest and smartest reporter in the solar system."

Pearsall smirked.
"You think a lot of yourself, don't you?" He slapped his pencil across his knuckles. "Well, I'll give you that raise if you get me an exclusive scoop in twenty-four hours, or less."

"All I need is twenty-four seconds," said Dale.

Grasping the stranger by the arm, he presented him to the editor-in-chief.

"May I present to you the new head of the Interplanetary Power Company, Mr. Slug Emmerson?"

"What?" shouted Pearsall.

"And would you like me to write up the story of his sensational exposé of political gang control of the Power Company? Mr. Emmerson has given me his evidence and asks me to conduct the exposé while he tends to a matter of business on Pluto. Now do I get the thousand?"

Pearsall groaned.

"You win. Now beat it, and get that write-up finished. I want to stand guard over these newlyweds. I don't want any more of those unstinted love taps."

He watched as his best correspondent left the building arm in arm with the new head of the Power Company. Suddenly he grinned.

"If he only knew, I'd have gone up three times as much as he asked, to keep him on my payroll."

He turned and peered into the room behind him. Softly he closed the door.

"Ain't love grand?" he muttered his question to the blank wall of the corridor.

THE END
Restitution

In the past, some of the most appreciated stories which we have given have touched on marvelous surgical operations and this one may figure among the best. We are glad to welcome Mr. Kalland back to our pages and his story will be found very impressive.

By JOHN FRANCIS KALLAND

Driving Dr. Chamberlain's car through the city streets at a break-neck speed was nothing new to Pat Callahan, but the speed with which he drove this morning seemed to invite certain disaster.

"Shure," he muttered beneath his breath as he clutched the wheel with fingers that showed white at the knuckles, "an' he must be thinkin' 'tis wan of thin airplanes he's ridin' in. I'm thinkin' 'tis wings we'll both be havin' soon if this kapes up."

But to Dr. Chamberlain the suicidal speed seemed but a snail's pace.

Pat prayed silently but fervently as the car careened around a corner on two wheels. He would have crossed himself had he dared take a hand from the steering wheel.

Street intersections came and went with dizzying rapidity and, to Pat, it seemed as though that string of intersections was endless, but at last he drew a deep breath of relief as he brought the car to a screeching halt before the house that was their destination.

It was an old house, set far back from the street, its front yard guarded by a rusty wrought iron fence in which was set a pair of still rustier gates.

Allen was out of the car almost before it came to a stop. To his surprise he found the gates slightly ajar. For a bare second he hesitated, then dashed up the flagstone walk to the house.

At the door he lifted the old-fashioned knocker, let it fall and waited impatiently.

Seconds passed but there came no answer to his knock so he tried again. From within seemed to come the sound of footsteps but the sound was so faint that he could not be sure. Impatiently he knocked again and yet again, but there was still no answer. Instinctively he grasped the door knob and turned it.

To his intense surprise the door opened. This was unusual. Allen had never found that door unlocked before. The circumstance gave him a strange feeling—a feeling that something must be wrong. He caught himself stepping into the hallway on tiptoe. Then, realizing what he was doing, he stopped with a sheepish grin.

"Jim!" he called out. "Jim, it's Allen!"

The grin left his face as the ghostly echo of his voice reverberated through the old house—the only answer to his call—and the feeling that he had tried to shake off became stronger.

Again he started forward, determined not to let that feeling depress him, but the grave-like silence of the place, broken only by the eery echo of his footsteps, intensified it. Nettled at his failure he stamped through the rooms of the lower floor with more noise than necessary.

The lower floor, consisting of an enormous living-room, a large dining room and an equally large kitchen besides the spacious veranda, disclosed
The black's eyes alighted on the ape and he saw at once what the animal was attempting. Then, with a savage yell, he charged.
nothing unusual, so Allen mounted the stairs to the second floor.

This floor had originally been divided into four bedrooms and one bathroom, but the partition between two of the bedrooms had been removed to form one large room which was now used as a laboratory.

Allen glanced into the first of the bedrooms, then turned his attention to the laboratory.

There was only one thing to distinguish this laboratory from others of its kind. Shelves and tables, filled with beakers, retorts and test tubes, lined the walls. Beneath one of the two high-narrow windows stood a table, upon which was a mounted microscope and a rack of slides. A copper caldron hung above a large gas burner, its distillation coils shining like burnished gold in the rays that filtered through the nearest window. The one distinguishable feature occupied a position at the center of the room, under a cluster of powerful electric bulbs. It was a fully-equipped surgical table.

As Allen’s eyes rested upon this table a frown wrinkled his brows. He walked over to it and picked up the end of an extension cord that lay upon one end. The other end was screwed into a light socket above but there was no apparent connection for the end he held in his hand.

Everything else about the laboratory appeared to be in order so he turned toward the second bedroom. That was the room that Jim Cummings used for his own sleeping room.

When Allen opened the door and his gaze rested upon the bed his heart skipped a beat, for there, draped across its back, hung the clothes that Jim always wore about the house.

For a moment he stood staring, then he bounded over to the clothes closet and flung open the door.

The first glance confirmed his fears. On the hooks hung the only other clothes Jim Cummings owned, a dress suit and a dark business suit. That meant that, wherever Jim was, he was still dressed in his pajamas.

Reluctantly Allen turned to the bathroom. It was the only room left and he dreaded to look into it. Slowly he opened the door, not knowing what to expect, but, once the door was open, his eyes swept the room in a rapid glance.

As that glance completed its sweep a feeling of weakness came over him and he leaned against the jamb. The room was empty.

For but a moment did that weakness last, then he leaped toward the telephone that rested upon a stand at the side of the bed.

Jim Cummings would never have left the house in his pajamas of his own volition and especially not within fifteen minutes after calling his friend to come over at once.

“Police Headquarters!” Allen called in answer to the operator’s inquiry.

W H I L E Detective John Hughes made his careful examination of the premises he scarcely spoke a word and Allen accompanied him in silence. But when that examination was completed and they halted in the laboratory he turned to Allen.

“Dr. Chamberlain,” he asked, “just how well did you know Dr. Cummings?”

Allen’s eyes held a wistful look as he replied.

“Jim and I were classmates at school, we served together in France, and we were at the same hospital during our internship. Since then, although he turned to research while I specialized in surgery, we have been in constant communication and I have kept in close touch with his experiments.”

The detective gazed thoughtfully at
the floor for a moment in deep thought.

"What was this mechanism about which he called you this morning?" he asked then.

"It was a device to regulate the speed of the planetary electrons of atoms," Allen replied. "With its aid he expected to stop the growth of cancer. Yesterday it was almost completed and this morning he called and told me that it was not only completed, but that he had already conducted an experiment with it and said that experiment was a complete success."

"Hmm!" grunted the detective noncommittally. "How many intimate friends did Dr. Cummings have besides yourself?"

"None that I know of," Allen replied. "He spent most of his time here alone, since he discharged his man. When he did go out it was usually with Mrs. Chamberlain and myself."

"How was he fixed financially?"

Allen shook his head negatively.

"Pretty low," he replied. "He was forced to let his man go. He cooked his own meals, and the only help he had was an old woman who came for a few hours a day to clean the house. I offered financial assistance several times but he wouldn't accept it. He was relying upon this invention to recoup his fortune."

The detective looked straight into Allen's eyes, his own narrowed.

"Could anyone benefit from this invention?" he asked quickly. "You, yourself, for instance?"

Allen's face reddened and he started an angry retort, but the detective raised a deprecating hand.

"I'm not accusing you, Doctor," he said with a smile, "but I could probably make quite a case against you at that."

He walked over to the operating table and picked up the end of the extension cord.

"I would like to hear more about this invention," he said. "Will you tell me what you know?"

Allen stood in thought for a moment. "I suppose," he said at last, "I had better begin at the beginning so that you will understand better."

The detective nodded assent.

"Well," Allen began, "Dr. Cummings and I both believed in the theory that cancer was merely an excess growth of normal tissue.

"Wherever cancer occurs there has been some injury to the tissues to begin with. When such an injury occurs the system immediately starts to replace the injured cells. Normally the replacement process stops when the replacement has been completed, but if it does not stop, there naturally results an abnormal growth which, of course, becomes an obstruction.

"If, as we firmly believed, all matter was composed of atoms composed of nuclei and planetary electrons, the movement of those electrons would send out vibratory waves. If a way could be found to measure those vibrations we could determine the truth or falsity of our cancer theory.

"Dr. Cummings found the way. He constructed a device made up of a series of sensitized springs, the smallest so minute that it could only be seen with the most powerful of microscopes, and the largest big enough to operate a recorder. Shocks received upon the smallest spring were intensified throughout the series, so that, when they reached the largest, the resulting vibration was great enough to be measured.

"Subsequent experiments proved the truth of the cancer theory, for the vibrations from young, cancerous tissue were of the same intensity as those from normal growing tissue. Those from tissue affected by any disease varied greatly.

"After these discoveries, Dr. Cummings
started work on a device to regulate those vibrations. His belief was that the protons and electrons making up the nuclei of atoms must contain an exact charge of electrical energy to function normally. Any addition to or withdrawal of a charge from this positive charge would result in disease. If this were true the device he contemplated would not only control cancerous growths but all other diseases as well.

"He built an X-ray machine more powerful than any before constructed. With a series of transformers within the mechanism itself he accomplished his objective. Those transformers developed a voltage that hurled electrons across the vacuum with such force that X-rays powerful enough to penetrate eight inches of lead resulted.

"This morning he tried his first experiment—on a small pig. That experiment was a complete success. He called immediately and I came over at once. You know the rest."

ONE WEEK later Ann Chamberlain regarded her husband’s drawn face across the dinner table with worried eyes. She had gone to great pains to prepare an appetizing meal, but he scarcely touched the food.

Not a single clue had been discovered to throw light upon the mysterious disappearance of Dr. Cummings and his invention. Allen had spent every minute he could spare in assisting the police but with no result.

Even his work failed to distract him from the thing that enveloped his mind to the exclusion of all else. In fact, sometimes it but served to remind him.

Witness. That afternoon he had conducted a fluoroscopic examination of a middle-aged patient’s stomach, that revealed a complete cancer obstruction. With the aid of his friend’s device he might have been able to effect a cure, but, without it, he was forced to admit his helplessness.

Now he could offer only temporary relief—insert a tube into the patient’s lower bowels so that he could be fed through it. In this manner life would be prolonged for from four to six weeks with a minimum of pain but the patient was doomed.

He was thinking of the case when Ann interrupted his thoughts.

"Don’t forget," she reminded, "the lecture starts at eight o’clock."

Allen had forgotten. The lecture, that he and Ann were to attend, was one that ordinarily would have claimed his whole interest, but now he scarcely gave it a thought.

However, after dinner he bathed and dressed and eight o’clock found them at the lecture hall.

The speaker failed to arouse his interest and, throughout the long lecture, he sat and brooded over the fate of his friend. The result was that Ann, who had planned a supper at a roof garden, ordered Callahan to drive directly home.

They were riding in silence, each engrossed in his or her own thoughts, when suddenly the car swerved sharply, there was a sound of splintering as the right front wheel crashed against the curb and both passengers were hurled violently against the back of the front seat. Allen arose from the floor to see a large moving van standing crosswise in front and four men, apparently passengers of the van, coming toward them.

At first Allen thought they were merely coming over to protest but, when Pat, who was already out of the car, met the first with a swinging right that sent him crashing to the pavement, he knew they had some other objective and hurriedly opened the door.

Just as he reached the pavement the second man reached Pat. Again Pat’s
right crashed against a chin with a force that sent the owner sprawling, but the third man had come up by this time and an implement in his hands crashed down upon Pat's head and the chauffeur crumpled in a heap.

Allen, dazed as he was by the impact against the seat-back, failed to note the actions of the fourth man. As a consequence, just as he hurled his body at Pat's assailant, that man slipped behind him and clapped something over his face. The odor of chloroform assailed his nostrils and he sank to the pavement.

WHEN Allen returned to consciousness he attempted to sit up only to find that his body was secured to the object upon which it rested. A strong light glared down upon him and it was a moment before he could see anything.

Then he saw that he was strapped to a table, the back of which was raised so that his body lay in a half-reclining position. Hearing a moan at his right he turned his head to see Ann, who was strapped to a similar table but a few feet distant, returning to consciousness.

He saw her eyes go wide when they took in his predicament, but, although her face went deathly white, she did not scream. Ann Chamberlain was not the screaming kind.

"Where are we?" she whispered tensely.

Allen shook his head.

The room was the strangest they had ever seen. Spotless white-tiled walls and ceiling reflected the light from clusters of powerful bulbs with blinding intensity, yet the light was such that the room was left without a shadow anywhere.

Around the floor were distributed many kinds of hospital and surgical apparatus. Never before had Allen seen such an array.

A short distance from the foot of their tables stood another table over the center of which hung a large apparatus with a silver screen, which Allen at once recognized as one of the latest inventions, an X-ray fitted with a magnifying lens and reflector. Over the head of the table hung also a powerful ultraviolet ray projector. What the combination might be used for, Allen could not guess.

Allen's contemplation of the apparatus was interrupted by an exclamation from Ann whose gaze had traveled to the wall beyond. He followed her horror-stricken gaze and an exclamation of amazement escaped his own lips. For there, at the wall, a double cage housed a pair of beasts the sight of which made him doubt his own senses.

"What are they?" whispered Ann in tones that vibrated with excitement.

"I don't know," Allen replied, instinctively lowering his own voice. "They must be some species of ape but Lord! I've never seen one like that. They look like the Neanderthal reconstruction."

And truly their appearance fitted his description.

Large as men they were and the facial characteristics were those of the reconstruction he spoke of. But the feet were as those of known apes, evidence of an arboreal existence.

Suddenly a strange whispering sound broke the stillness and the man and woman both turned their eyes in its direction.

To their amazement the sounds came from a medium-sized chimpanzee who crouched a short distance from Allen's table.

The creature was evidently trying to attract their attention.

Allen had seen well-trained apes before, but never had he seen one possessed of eyes such as the ones that looked into his own—eyes that seemed to be trying to convey an appeal. And
also, the creature was undoubtedly trying to communicate with him by signs. Allen's brain was in a whirl.
"Good Lord!" he burst out. "What in the—"
He broke off suddenly at the sound of a human voice.
"Ah!" exclaimed the voice. "You haf
your senses regained."

ALLEN and his wife looked up into a pleasant white-bearded face, the face of a man in his late fifties.
"I am sorry," the man said, "in this manner to so inconvenience you but it was the only way."
Allen stared in amazement, then his ire arose.
"Look here!" he demanded. "What's the meaning of this? Free us at once!"
The bearded one smiled.
"That I cannot do," he said, still pleasantly. "You might, I am afraid, want to leave."
Again Allen stared in astonishment. He was mad clean through and angry words came to his lips but he choked them back.
"What do you intend to do with us?" he asked, trying to keep his feeling out of his voice.
The blue eyes of the bearded man lit up with a peculiar gleam.
"My friends," he whispered, as though confiding a secret, "you are the fulfillment of Destiny. Yours the honor will be of accomplishing the rehabilitation of God's First People—those people who haf, these many years, to me for liberation cried."

The cold sweat broke out upon Allen's brow. Now he was sure that they were in the clutches of a madman. What that individual's intentions toward them were he could not guess, but he felt that they were in a precarious situation. Another question came to him but the other one silenced him with a gesture.

"There is much work to be done," he said shortly. "You may watch."
He pushed a button, then busied himself about the table beneath the X-ray. Then he walked over to one side of the room and came back wheeling a small table upon which rested a mechanism the sight of which brought a cry from Allen's lips. He would know that device anywhere. It could be none other than the machine that Jim Cummings had just completed.

Just as the bearded one had arranged the apparatus beside the table, a pair of swinging doors at the far end of the room opened and a huge negro appeared, pushing a rubber-tired hospital cart upon which rested a form covered with a sheet.
The bearded one spoke a few words to the negro in a strange tongue and they then lifted the form to the table and removed the sheet.
Again a gasp of amazement escaped Allen's lips. The man upon the table was the same one he had examined that afternoon.
The bearded man donned a surgeon's mask and apron and stepped over beside the prone figure. Then suddenly the lights went out, the apparatus above the table began to glow, and the familiar sound of an X-ray machine filled the air.
The screen lit up and a shadowy mass appeared upon it, but this mass quickly resolved itself into an image of the organs of the man beneath.
As the prisoners watched they could see the mirrored heart action slow down, the blood flowed more and more sluggishly through the veins and then the heart-beat stopped altogether.
Allen, in spite of his own predicament, was fascinated. He knew that the result was accomplished with the aid of Jim's invention, but it was a use of that instrument of which neither
Jim nor had he thought in their experimenting.

The instant the blood flow stopped the bearded one went into action. Allen himself had performed many rapid operations and many more had he seen performed by others, but never had he seen such speed and dexterity exhibited. Almost before he realized it the huge cancerous growth had been removed and the incision closed. There was a click and the image on the screen began to grow. It grew until the locale of the operation filled the entire space. The larger blood vessels now appeared as huge ribbed ducts and a number of small ones, heretofore invisible, came into view.

The blood began to flow again, sluggishly at first but faster and faster, as the heart action increased. So great was the magnification that even the small cells of solid matter carried in the stream were visible.

The tiny branch-ducts that led to the surface of the wound had been left open and Allen expected to see the blood flow into the stomach, but, to his astonishment, the little cells attached themselves to the wound, grew and split so rapidly that a thin film of tissue was formed before any appreciable amount of blood could escape.

Suddenly there was another click and once again the room was flooded with light. By the time the captives’ eyes became accustomed to the glare the patient had been removed.

When Allen could see, he saw that the bearded one stood beside him, his eyes gleaming.

"It is wonderful!" he cried. "With its aid God’s People shall to their original state return and from disease never again will suffer."

Allen knew that he referred to the mechanism.

"Where did you get it?" he asked in a tense voice.

The bearded one looked a little surprised at the question, then he smiled. "The inventor," he then replied, "Dr. James Cummings, to the cause of the First People made the contribution. It was the Will of Destiny."

With the startling announcement the bearded one turned on his heel and strode from the room.

The amazed pair stared after his retreating form in wordless astonishment.

Ann was the first to recover her speech.

"Allen," she whispered fearfully, "something terrible has happened to Jim. Either he is a prisoner in this place—or—or—"

"Or this madman has done away with him," Allen finished for her. "Without a doubt he had Jim abducted just as he had us. He must have found out about Jim's invention in some way and that would furnish the motive in his case, but I can't see where we fit in."

"He said we were the fulfillment of Destiny," Ann reminded him. "What did he mean by the rehabilitation of 'God's First People'?"

Allen was about to reply when that strange whispering sound again interrupted him. Turning his head he saw the chimpanzee approaching furtively.

Silently he watched the animal creep to the side of the table to which he was secured. Then, to his amazement, the beast tried to unloosen the straps.

The fingers worked feverishly at the buckle of the strap that held Allen’s left arm but the stiff strap resisted all efforts. Meanwhile the creature’s eyes looked beseeingly into Allen’s and a voluble, but unintelligible chattering broke from its lips.

Allen could scarcely believe his senses. To Ann also the thought came that the whole thing could be but a vivid nightmare. But that thought was dispelled
when the door opened and the huge negro stepped into the room.

The black's eyes alighted on the ape and he saw at once what the animal was attempting. Then, with a savage yell, he charged.

The object of his wrath gave a plaintive cry and scurried off in the opposite direction, just as the door opened to admit the bearded white man.

The man took in the situation at a glance and stopped short. Then he called something in the strange tongue he had used before, and the negro, abandoning his chase, returned to the center of the room. The bearded one spoke again, apparently giving some order, then once again donned his mask and apron.

From a case he took an ether mask and, with this in one hand and a bottle in the other, approached the cage that held the strange apes. There he jabbered in a strange manner and, to the astonishment of the watchers, one of the apes thrust its muzzle between the bars to sniff the mask he held against them.

The man poured out some of the contents of the bottle and the odor of chloroform spread over the room. The beast seemed to like the odor, for it sniffed eagerly. Then it began to sway and, a moment later, sank limply to the floor.

The negro and the bearded one carried the inert form to the operating table, where they strapped it securely. Then Allen's heart gave a leap and he began to struggle desperately in an effort to free himself. They were coming for him.

Allen continued to struggle while the pair pushed his table to a position by the side of that which held the form of the unconscious ape, but his efforts were useless and at last he gave up.

Horror-stricken he watched the preparations for what he knew was to be some kind of an operation. He thought not so much of his own fate, but the thought of Ann in the power of this madman drove him frantic.

"Good Lord, man!" he cried hoarsely to the bearded one. "What are you going to do?"

The bearded one turned and looked down at him.

"Your brain," he replied, "will the rehabilitation of one of God's People accomplish and, through that one, all succeeding generations."

The horrible significance of the words sent a chill to Allen's heart, but he bit his lip and his eyes blazed, as he stared into the blue ones above him.

"All right," he said, in a tense, low voice. "Do with me what you will, but free the woman."

The bearded one smiled and lifted the ether mask.

"The woman," he said slowly, "also her part will play."

With that the mask came down over Allen's face. He tried desperately to hold his breath, but the fumes soon reached his brain and consciousness left him.

Ann watched the preparations in horrified silence. She had not heard what was said by either Allen or the bearded one, so she did not know what the latter intended. But she did know that Allen was in a precarious position and, consequently, she also struggled desperately at her bonds.

Suddenly the lights went out and the glow from the mechanism above the operating table shone forth. Then another light bathed the head and shoulders of the two inert figures beneath.

Ann, watching with eyes that were held as though by a magnet, started suddenly. There had been no sound but she felt something straining at the straps that held her arms.

She strained her eyes to see what it
was, but the darkness was Stygian. She gave over her effort and turned her gaze back to the operating tables. As she did so a gasp of horror escaped her lips. She saw now what the nature of the operation was to be.

Then her heart gave a bound. The strap that held her right arm came loose. Swiftly she loosened the other one, then those that held her legs. Another moment and she was standing on the floor at the table's side.

There was no plan in her mind but she was free. For a moment she stood still, her eyes riveted upon the group at the center. Then her muscles tensed.

The bearded one had picked up a scalpel which he now held poised above Allen's forehead, while his other hand pushed back the physician's hair.

No reasoning prompted the next move of the woman. With a savage cry she leaped forward and sprang upon the back of the man. The scalpel flew clattering to the floor and the man almost pitched over on the table. Then he righted himself and his hands flew up to clutch at the fingers that had fastened in his beard.

Ann pulled desperately, one knee in the small of the man's back, but her heart sank, for, as the bearded one whirled she saw the burly negro leap toward them, his huge hands outstretched.

Those hands, reaching forth to tear her loose, stopped suddenly in mid-air, then began to claw wildly at something that fastened itself on their owner's back.

The negro whirled in an effort to dislodge the thing and then Ann saw what it was—the chimpanzee. The thought occurred to her swiftly that it must have been the little beast who had loosened her bonds. How strange that it should go to such lengths to befriend her and Allen.

Her strength was giving out. The hands that clutched her wrists squeezed like a pair of visees and the strength flowed from her fingers. Her hold upon the beard loosened, gave away entirely and then there was a sudden wrench upon her arms. Powerless now, her body was drawn over the bearded one's shoulders and thrown to the floor.

One powerful hand held her on her knees while the other reached for the ether mask. She whirled her face in a desperate effort to escape the fumes and, as she did so, her eyes turned in the direction of the door. Then a cry broke from her lips for, at that instant, the door opened and the beams from a pair of powerful flashlights stabbed into the darkened room.

"Put 'em up!" a voice called out as the beams came dancing across the floor to the accompaniment of the sound of running feet.

The bearded one released his hold and Ann sank weakly to the floor, but she saw him snatch a sharp instrument from the tray and cried out a warning.

He crouched in the approaching light like an animal at bay. The light stopped a few feet in front of him and he leaped but something stopped him in mid-air—something that descended upon his head with a dull thud—and he sank unconscious to the floor.

When the lights went on again Ann gave a glad cry.

Before her stood Pat Callahan, Detective Hughes, a uniformed policeman and two men in plain clothes who bore the unmistakable stamp of police detectives.

The bearded one lay unconscious upon the floor, while the negro stood manacled between the uniformed officer and a plain clothes man, blood flowing from a wound in his shoulder. That wound must have been inflicted by the chimpanzee. Ann looked around for the beast
but it was nowhere to be seen. It had undoubtedly fled at the approach of the others.

"Glory be!" burst out Pat Callahan. "It's good to lay eyes on ye, Mom, but what's the divvel been doin' to the Doctor?"

The question suddenly reminded Ann that the rays of the mechanism were still focused upon Allen. She leaped to her feet and yanked the cord from its socket, then peered eagerly into the still face.

Allen lay as one dead. There was not the slightest sign of respiration—no pulse. Ann loosened the bonds from his arms and chafed his hands desperately but with no result. The detective relieved her after a few moments, but his efforts were as fruitless as hers had been.

A moan from the floor interrupted them and they turned to see the bearded man opening his eyes.

Ann fairly leaped at him, her eyes blazing.

"Bring him back!" she demanded fiercely, grasping him by the shoulders and shaking him. "Hurry! Hurry!"

The blue eyes looked up at her blankly.

"What is it?" he asked in bewilderment. "Whom am I to bring back?"

Hughes grasped him by the arm and jerked him roughly to his feet.

"None of that!" he said sharply. "You know well enough." He indicated Allen's still form. "Get busy and bring him to."

The bearded one stared at the still form in utter bewilderment, then his eyes rested upon the form of the strange ape.

"Gott in Himmel!" he exclaimed. Then his eyes traveled about the room and they widened. He brushed his hand across them as if to clear his vision.

"How came I to this place?" he asked in an awed voice. "Where on earth is it?"

Ann's face went deathly pale. She recognized the sincerity of the man's protestations. The blow upon his head had robbed him of his memory. How now could Allen be returned to consciousness?

"Don't you remember?" she pleaded. "Can't you operate Dr. Cummings' mechanism to bring him back?"

"Dr. Cummings?" he repeated in puzzled tones. "I am afraid that him I do not know."

"Dr. Cummings?" Detective Hughes also repeated, raising his brows questioningly. "Where—"

He stopped suddenly and whirled sharply as a whispering sound came to his ears. The rest of the group turned also to see the chimpanzee approaching cautiously.

The policeman drew his revolver and leveled it but Ann threw herself forward and grasped his arm.

"No! No!" she cried. "He is our friend!"

The officer stared at her in astonishment. Apparently he thought that preceding events had affected her mind, but he lowered his weapon and the ape approached closer.

Then, to the amazement of the group, the beast walked over to the mechanism, picked up the extension cord and pointed to the socket.

For a moment no one stirred, then Ann reached and took the extension from the slender fingers and plugged it in.

There was a hum from the mechanism and all eyes watched wonderingly. To their astonishment the ape opened the mechanism and made some adjustments. The hum changed in pitch and the eyes of the group turned to watch the effect on the still form of Dr. Chamberlain.

They had not long to wait. Almost instantly the pale skin began to take on
color and scarcely more than a minute elapsed before Allen opened his eyes. As he blinked unseeing in the strong light the strange ape beside him also opened its eyes. With a glad cry Ann threw herself upon her husband and her arms encircled his neck.

“Oh, Allen!” she cried. “I thought you were gone!”

Allen patted her head reassuringly and sat up. Then his eyes rested upon the group and a look of astonishment came over his features. He turned inquiringly to the detective.

“How in the world did you get here?” he asked.

“Officer O’Reilly, here,” Hughes replied, indicating the uniformed policeman, “found your man, Callahan, lying beside your wrecked car. I guess the gang, that got you, thought that he was done for, or they never would have left him, but he was only knocked out. When he told what had happened, O’Reilly phoned me and we got on the trail of that van right away.

“We found people along the route that had seen it and we trailed it to this building. We had a devil of a time finding the stairs to this place—you know this is the basement of an empty warehouse—but we finally managed it and I guess we got here just in time.”

He then related what they had found at their arrival and all that had occurred since.

“So,” he concluded, “you really owe your life to that chimpanzee.”

Allen’s brows wrinkled in astonishment as he looked wonderingly at the small ape.

“It’s certainly beyond me!” he exclaimed. “It tried to loosen my bonds a short time ago. I’ve never seen a beast with such intelligence and it seems to have taken a liking to us.”

Then his eyes turned upon the bearded man.

“Where did you get that ape?” he demanded, pointing to the chimpanzee. The man stared at him in bewilderment.

“Where did I get it?” he repeated. “Never before on that creature haf I laid eyes.”

Allen became angry but, before he could utter the accusation that was on his lips, Ann interrupted.

“It isn’t any use,” she said, “I’m sure he can’t remember a thing. That blow on the head must have robbed him of his memory. He doesn’t remember anything that occurred here. I wonder if he remembers anything at all.”

At her words the bearded one’s brows wrinkled in a puzzled manner.

“Did you not from these creatures rescue me?” he asked, pointing to the strange ape on the table. “Where is this place? Nairobi? But that cannot be for in Nairobi there is no such place.”

Allen sensed a strange situation.

“This,” he said, watching the man’s face closely, “is New York.”

A bomb, exploding at the bearded one’s feet, could have caused no greater astonishment.

“New York!” he exclaimed. “How can that be?” He raised a hand to the place where Pat Callahan’s blackjack had landed. “Many hours cannot have passed since that beast with the club hit me.”

Detective Hughes now recognized what Allen had suspected the moment the bearded one mentioned Nairobi.

“Tell us,” he requested, “who you are and what you have been doing—for the last few months.”

The bearded man’s eyes lit up.

“I am Dr. Carl Mueller, of Berlin,” he answered. “I haf for the last six months the apes of Central and East Africa been studying. Three months ago there were rumors about a tribe of man-like apes, who in the northern part of
Uganda live. Many wild tales I heard and, at first, to the natives’ imagination I attribute them, but later I find that in them there is much truth.

“Those apes did the native women steal and that was not all. Some of those women did by the apes children haf.”

He stopped to view the astonishment and disbelief written on the faces of his listeners.

“I haf the offspring myself seen,” he resumed. “Their villages I haf observed. They haf in the trees groups of grass huts built. Those villages I for two weeks watched, without by the apes being observed, but then by two of them I am surprised and, before I can shoot, one of them with a club hit me. No more do I recall.”

As the German stopped speaking Allen felt a tug at his coat sleeve. Looking down he saw the chimpanzee standing erect beside him. The creature was trying to communicate with him but what was it he was trying to tell?

For several moments Allen stared, puzzled, then a light of comprehension came into his eyes. The creature was actually pointing to the huge negro who still stood manacled between the two policemen. Was the beast trying to tell him to question the black?

Allen thought so and turned to face the negro.

“Here you,” he demanded. “Tell us what you know about this.”

The black merely rolled his eyes and indicated with a motion of his hands that he did not understand.

Allen turned to the German.

“Dr. Mueller,” he asked, “do you know this man?”

The German looked at the negro but shook his head.

Allen thought for a moment, then he asked: “Do you speak any of the native African dialects? That of Uganda for instance?”

The German’s eyes lit up at the question and he turned eagerly to the black. After the first question there followed a long discussion with the black doing most of the talking.

The negro apparently disclosed startling information for the white man’s face alternately showed astonishment and concern. When the black finally finished he turned tragic eyes to Allen.

“Ach du Lieber Gott!” he cried in a voice that was filled with despair. “How can it be, such things? Too terrible it is!”

“You had better tell us,” Allen directed quietly.

Dr. Mueller passed a bewildered hand before his eyes.

“It is so hard for me to believe,” he said painfully, “but it must be so, for oder, I in this place would never be.

“On the northern shore of Lake Kioga the black says his home is. For more than a year he haf for me been working. He helped me the apes to America bring. Many diamonds he says I haf with which to pay for the things I need. Many men haf I hire to get those things and to haf this place fitted out.

“Then, for many months, I haf these instruments studied until at last I am prepared the thing for which I came to do.”

The German stopped and buried his face in his hands. Then he straightened up and faced Allen resolutely.

“Your brain,” he said hoarsely, “was I to gift to one ape and the brain of the lady to the other, because I did believe that the apes God’s first people were and that their rehabilitation in my hands was.”

The man seemed to age visibly during the brief recital. He sat down wearily on the edge of the table to which Allen had been bound, his head bowed in grief. When he raised it again tears were
streaming down from both of his eyes.

"I haf not the worst told you," he said in a low voice. "With me you can do what you will but tell it I must. I haf a murder committed."

The announcement came as no surprise to Allen but Hughes' lips tightened and he stepped forward.

Allen waved him back.

"Remember," he admonished, "that Dr. Mueller was an entirely different personage at the time. I doubt if any jury would convict him."

He turned to the grief-stricken man.

"Won't you tell us about it?" he said softly.

Dr. Mueller's eyes were grateful as he raised them but the sorrow in their depths did not diminish.

"The black told me," he said in a voice that was scarcely more than a whisper, "that to the chimpanzee did I the brain of a man transfer—the brain of him who the inventor of that new machine was."

EVEN the hard faces of the policeman blanched with horror at the announcement.

Every eye was glued to the German's face as though seeking there some refutation of the astonishing disclosure. Then, with one accord they turned to rest upon the small ape who still stood at Allen's side.

For an instant Allen stood looking at the creature, then he dropped to his knees and his arms went around the furry body.

"Jim!" he cried. "My God, Jim! What can we do?"

The little hands patted him on the back and the loose lips moved as though to speak but only the unintelligible sounds that they had heard before issued from them.

"Allen!" Ann's voice whispered tensely as she bent close to her husband's ear. "Ask them what they have done with the body."

Allen leaped to his feet and faced the German.

"Ask the black where the body is," he demanded.

Dr. Mueller did as he was directed and the negro answered shortly, rolling his eyes in the direction of the door.

"What did he say?" Allen could not wait for the German to speak. Then, before the other could reply, he said hurriedly: "Never mind. Tell him to lead the way if it's here."

Dr. Mueller gave the command to the black and the man started toward the door.

Through the door and to the far side of the outer room the group followed, Allen with the hand of the chimpanzee clasped tightly in his own.

The negro stopped before a heavy door and motioned toward it.

Allen pushed past him, grasped the heavy handle and flung the door open. A rush of cold air enveloped him and he stepped back. Then he stepped over the threshold only to recoil in spite of himself. For there, in the center of the small chamber, stood a table with a marble top upon which lay the form of James Cummings.

For a moment no one spoke, then Allen turned to the German who had followed close behind him.

"Do you think there is any possible chance?" he asked tensely.

Dr. Mueller shook his head sadly.

"I am afraid that it too late already is," he answered.

Allen started to speak but a tugging at his sleeve interrupted him. He looked down to see the head of the chimpanzee nodding vigorously. For a moment he merely stared but then, remembering the brain that was encased in that ugly cranium, the meaning of the movement dawned upon him.
“Dr. Mueller,” he cried eagerly. “Jim thinks there is a chance, so we’ll take it.”

The German’s brows wrinkled in puzzlement.

“But how,” he protested, “can—”

The mechanism!” Allen interrupted.

“I can work it while you perform the operation.”

Dr. Mueller stared aghast.

“I?” he asked in astonishment. “I’m afraid—”

He stopped suddenly as another thought struck him, his shoulders squared and his heels clicked together sharply.

“Make ready,” he said in a firm voice.

THE GLOW from the lamps above the operating tables bathed the two forms beneath, that of Jim Cummings and also that of the small ape in whose cranium reposed the scientist’s brain.

A low hum came from the mechanism beside which Allen stood and, in a few moments, the body of the ape became as still as the human form beside it.

All eyes were fastened on the hands of the German surgeon. Swiftly they moved. First a section of human pate was removed, then a similar section from the head of the ape.

Allen bit his lips as the brain was transferred and his mind filled with doubts. Jim had undoubtedly urged him, or rather Jim’s brain had, to try the operation, because he would rather face death than live in his present state.

Dr. Mueller signalled. His work was finished.

Nervously Allen adjusted the mechanism. He knew that powerful X-rays were coursing through that still form. Would the atoms of flesh respond? Would the X-rays excite the charge in the dormant protons and electrons?

Minutes passed and nothing happened. Beads of perspiration came out upon Allen’s brow, while Dr. Mueller’s finger nails bit deep into the palms of his hands.

“All!” Again it was Ann who came forward with a suggestion. “Why don’t you try the ultra-violet ray?”

Instantly Allen recognized the worth of the suggestion. It took him but a moment to locate the switch and soon the rays streamed over the still forms below, bathing them with penetrating heat.

For a full minute he watched eagerly, then despair clutched his heart. The form remained as still as ever.

Dr. Mueller’s face was deathly pale. For a moment he had hoped, but now it seemed certain that he was to be denied the opportunity of undoing the wrong he had unwittingly committed.

Then suddenly his face lit up as a thought flashed into his brain. Quickly he reached out and turned another switch—the one that controlled the X-ray suspended above the table.

Hardly had the hum of this apparatus added its sound to that of the other, when a cry broke from Allen’s lips. Startled, Dr. Mueller stared at the face upon the table. Then a glad look came into his own eyes. A tinge of color had appeared in the pallid cheeks. The cross-fire of X-rays had excited the atoms to activity.

The color flowed into the pallid features rapidly. Then the lips parted and Allen sprang forward just as the eyelids fluttered open. Jim Cummings was looking again into the eyes of his friend, this time through his own eyes. Then his gaze met that of Dr. Mueller and he smiled.

“Thank God!” breathed the German fervently. “Restitution haf I made!”

THE END
In the Realm of Books

By C. A. BRANDT

TOOLS OF TOMORROW. By Jonathan Norton Leonard. Published by The Viking Press, Inc., 18 East 48th St., New York. 307 pages. $3.00.

The scientific book club selected this book for the month of April, which indicates considerable merit. Almost all of the stories in our magazine deal with the future and the possible development of science in times to come. We have read about and are thoroughly familiar with all kinds of omnipotent rays, we have learned all about space travel at many times the speed of light, we also have learned about the possible development of the machine "petrie," its possible ultimate danger to civilization etc., etc. It is good for all the devotees of scientific fiction, in order not to loose ourselves completely in all these wonderful fantastic dreams, to read occasionally a book, which deals with nothing but established facts, instead of "sticking" exclusively to a diet of sometimes far fetched, withal pleasant, speculations as to what the future holds in store for us.

"Tools of Tomorrow" is such a much needed book. It is a sober, simple and not too technical array and parade of the astonishing number of new machines and resources which are at our beck and call now. Yet there is plenty of same speculation in the book, as Mr. Leonard dwells on the possibilities of discoveries and inventions which are as yet not at all or only partly developed and exploited. What makes the book particularly valuable is the fact that Mr. Leonard establishes and shows everywhere the close relationship between tools i.e. machines and power and humanity, illuminating the existing weak points everywhere. For instance in part one, in the introduction he mentions some of the facts, which hinder economic world development: "There is hardly a single article in the world today, which could not be produced better and cheaper if the network of tariffs, quotas and subsidies were removed. Economic nationalism is a wasting disease which stunts every twig of technical civilization." Mr. Leonard evidently dreams of the benefits of a world state when he says: "Nationalism is one of the chief enemies of mass production today." He also states a truthful when he says: "We should have much better automobiles for instance, if the public were to demand efficiency and comfort instead of conventional style and social prestige."

Part two of his book deals with our sources of power, which he calls: "Food for mechanical slaves." These particular chapters are written with extraordinary clarity, giving us the cheerful news, that there is and always will be plenty of power, in one form or another, and that in time to come the public and not the owners of the power companies will be the chief beneficiaries.

Now and then he rears up and tears the fabric of ballyhoo, which the professional liars, alias advertising copy writers, have woven about this and that new invention and discovery. Very pleasant to read are his views on "Streamlining." This word has lately been much overworked. In my opinion it belongs in the same class of bombastic advertising nonsense, which claims that the center leaves of a tobacco plant, are kinder to your throat after broiling them, than the top and bottom leaves. Mr. Leonard says about "Streamlined" trains: "They are nine-tenth advertising and one tenth technology."

In his chapters on transportation however he does not consider one important fact which always has and will prevent much needed improvements of our railroads: The United States are covered with an intricate network of railroads, all privately owned. Each road has a president and other overpaid, corporation officers. All of them draw enormous salaries, which in the aggregate amount to many hundreds of millions of dollars. If these vast amounts were only partly used for general improvements instead of enriching private individuals, what wonderful railroads we could have.

In his chapter: "The Future of Human Labor," he points out that the machine is not to blame for its efficiency which is causing unemployment, but, that the guilt is to be placed on the heads of those non-technical leaders, who fail to provide for the innocent victims of an improved method. In other words, "greed" is at the root of all economic evils. Not only greed, but the monumental stupidity of Capital, which has senseless overproduction on one side and low wages and bad distribution on the other. The constantly increasing replacement of men by machines surely will not bring about "prosperity." "One-man trains" and "one-man street cars" and self-service "swilleries," pardon me, I mean cafeterias, will not accomplish a return of prosperity either. If the labor-saving devices keep on to be increasingly used, the world will eventually have to support hordes of "white
Indians," the unemployables, which have been replaced by the labor savers. In my opinion it would probably be better in the end to develop some of the Rube Goldberg inventions, which enable three men to do the work of one, and I refuse to believe that the world would be the loser—the capitalist perhaps, but nobody loves him anyhow.

The book winds up with, to the radio manufacturers very cheerful statement (?) that he has noted an increasing demand for "all wave" sets. Probably the average radio listener is so disgusted with the domestic commercial advertising blah-blah, urging the purchase of toothpastes, purges, beauty helps, cigars and worthless cure-alls on a long suffering public, that the said public is willing to risk new money to get imported blah-blah and claptap on the short waves. I think it would be better, if some inventor would get busy and invent a multiple blab-filter, which eliminates whatever the listener does not wish to hear.

"Tools of Tomorrow" is an interesting and thought-provoking book, which should be of benefit to every science fiction fan, as it contains nothing but facts.

A Very Fine Fantastic Adventure Story

FULL MOON. By Talbot Mundy. Published by D. Appleton-Century Company, 35 West 32nd St., New York. 312 pages. $2.00.

India is the favorite scene of many of Mr. Mundy's novels. He knows India quite well, having spent nearly ten years there in the British Government Service. He is a well known writer of adventure stories, some of which have unfortunately not yet appeared in book form. His stories of adventures in India and Africa, where he has also lived, are always thrilling, full of authentic local color, and some of the characters he has created are as alive and as vividly portrayed as the well known figure of Sherlock Holmes.

Sometimes his tales become a bit confusing as thrilling events follow one another with bewildering rapidity, but Mr. Mundy knows how to keep the reader's attention to the end, and I defy anyone to lay aside one of his books half read, and forget to finish it.

In "Full Moon," Mr. Mundy has surpassed all his previous romantic exploits. His splendid imagination is hitting on all cylinders. As usual, mysterious, incomprehensible India, the land of magic and legends is the setting. Brigadier-General Frensham has disappeared and Blair Warrender, who has been courting Henrietta, Frensham's charming daughter, is ordered to find him. Clues are few, but since Frensham has been dabbling in the occult sciences, a hollow gold brick of peculiarly hard gold, and a statue of a sub-human figure of the same gold, point to a lost civilization, which Frensham was possibly investigating. The statue was in the house of Wu Tu, a Eurasian of great beauty but bad reputation, where a plot was hatched to hypnotize and capture Blair. The scene shifts to the ruined castle of Gaglajung, to which the apparently hypnotized Blair gains access through a cave filled with bats. In the cave he encounters one Taron Ling, who is a master of the occult sciences. Blair kills Ling, and emerges finally into the dungeons of the old castle, where he meets one Zaman Ali, an Afghan adventurer, and his henchmen, also Wu Tu, who seem to be all on the trail of Frensham, particularly Wu Tu, who has a hunch that Frensham has discovered an important secret concerning the total disappearance of a race of prehistoric giants. Of this mysterious race only one specimen has remained—the corpse of a gigantic woman, encased in a stalactite. Nothing remained of their civilization except a roomful of golden statues, all made from the same inexplicably hard gold, which loses its diamond-like hardness after several smeltings.

Wu Tu murders Zaman Ali and several of his henchmen. Blair discovers Henrietta as a prisoner in one of the side caves and she reveals the secret of her father's disappearance. He had discovered the treasure room and in one of the hollow gold bricks he had found a tablet inscribed with mathematical formulae, which enabled him to enter the fourth dimension. The grotto, containing the stalactite-encased giantess was the point of contact between this world and the fourth dimension, which could only be entered at the time of the full moon, and the person who wished to enter had to be completely nude. Blair and Henrietta decide to follow and eventually find Frensham. They disrobe, but are prevented from entering the fourth dimension by Wu Tu, who, entirely nude, steps upon the magic spot and vanishes. A moment later the light of the moon changes and the contact spot closes. A book full of suspense and swift, breathtaking action.
DISCUSSIONS

In this department we shall discuss every month topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in the magazine. In case a special personal answer is required, a nominal fee of 25c to cover time and postage is required.

Some Very Definite Criticisms of our Methods with Which We Utterly Fail to Agree

Editor, AMAZING STORIES:

Thanks for publishing my previous letter to you; it was my first "missile" to any magazine. I can only hope that this one fares as well.

Quite naturally, the best story in the February AMAZING STORIES was "Island of White Mice," by the inimitable Dr. Keller. In March, the best was "Interference," by Max Sheridan. In his first story (to my knowledge) this writer shows great promise as an author of science fiction. For April, perhaps the best was "The Martian Mail," by J. Lewis Burtt, B. Sc. But the April number was not up to the standard set in the first three months of 1935.

The first real "sore thumb" of the year is "Seven Perils to Quiches," by Joe W. Skidmore. Really, Joe, should you be ashamed of yourself for having written it, and you, Dr. Sloane, should be ashamed of yourself for having accepted and published it. "Pon my word, that's the worst story you have given us since "Borneo Devils," by Murray Leinster, in the February 1933 magazine. Tsk! Tsk!

Dr. Sloane, you are publishing far too many interplanetary stories. You might take a leaf from the book of one of your cordially hated competitors, and cut down on them. In their April 1935 issue, there is only one. In A.S., there are three. The interplanetary story may be the highest type of science fiction, but please give it a rest. "Earth Rehabilitators, Consolidated," by Henry J. Kostkos, was "punk. It was the poorest of Kostkos' efforts to date. In the above mentioned story, why did the air remaining on earth go a hundred miles above the surface and form a hollow sphere when the rest of the atmosphere was torn away by the comet? You know as well as I do, Dr. Sloane, that if most of the air were removed in the manner described, the rest of it would tend to seek the lowest spot it could find. Mr. Kostkos himself stated in another part of the story that the reason the bear-men stayed in the cavern was because there there was more air. Granted that any air at all went out and formed a sphere, why did not the rest do likewise?

Morey is good at times, but he has too much work to do, considering that he also illustrates for the other Teck publications. He did such a good piece of work on the May 1934 cover, and that for September was no slouch, but then he came out with that AWFUL October cover.

I notice that you have acceded to Jack Darrow's and my requests concerning the changing of your volume numbering. Thanks!

This letter has become rather long-winded, so I must close with best wishes for an improved AMAZING STORIES with less interplanetary fiction.

CARL E. WOODLARD,
2628 Gibson St.,
Flint, Michigan.

(We do not wish to apologize for anything we have published. A certain amount of play of fancy has to be allowed in science fiction stories, and according to the ideas of our staff, our writers keep well within the limit. One great point to be kept in mind is that aridity must be avoided. Mr. Morey has not too much work to do. The fact that you consider the October cover awful is that the story which it illustrates did have a certain element of horror about it. As a matter of interest you might give us the names of "our cordially hated competitors." We did not know that we hated any competitors.—EDITOR.)

The Comet-Tail Title on the Small Size Cover

Editor, AMAZING STORIES:

It would hardly be fair to a magazine to write critical letters to the editor because of some minor faults and then remain silent when one is highly pleased. For that reason I want to give you my heartiest thanks and congratulations for bringing the old style title back again after two and a half long years. It looks just as fine on the small size as it did on the large. And maybe it's just the association, but Morey's inside illustrations and the stories seem improved, too.

PAUL FREEHAFFER,
Box 12,
Payette, Idaho.

(Personally, we feel that the comet-tail title is an improvement and we are gratified
that it shows up so well on the smaller size magazine.—EDITOR.)

A Number of Back Issues of Amazing Stories For Sale

Editor, Amazing Stories:
I have a number of issues I would like to dispose of. Nov. 1933 to and including July 1936.
I am moving quite a distance and will be unable to take my magazines with me. What am I offered?

Aloha Young,
736 8th St.,
San Bernardino,
Calif.

Suggestions and Criticisms

Editor, Amazing Stories:
I have been reading your magazine occasionally, but not often. I had practically given up hope regarding it. It was at the foot of the science-fiction class of magazines. But since January it has shown remarkable improvement. I can even catch a fleeting glimpse of the old Amazing of 1928-1929 in its pages.

A few suggestions:
1. Keep the “receding from A” title words.
2. Increase the size of the magazine.
3. Don’t reduce the price.
4. Keep up the fine editorials. I like them better than anything else in Amazing Stories.
5. Picture more “scientific” than “weird” scenes on the cover.
6. Keep Jack Williamson out of your pages. He would be all right for Horror or Terror mags.
7. Get more stories relating to astronomy. —You seem to have overlooked this science.

I rank the stories of the July issue thusly: “Space War”—better than average. 2. “The Inner World”—fair. 3. “Liners of Time”—Don’t like the love interest. It backfires on its theories, too, as all “time travel” stories are bound to do. 4. “Parasite”—Not up to the Harl Vincent standard. 5. “The Weather Master”—Written like a synopsis. 6. “People of the Arrow”—rather pointless. The editorial was excellent.

I am fourteen years old, a sophomore in high school and interested in astronomy.

Bill Bowling,
Pryor, Oklahoma.

(Jack Williamson has been accepted by our readers with much favor and we have come to the conclusion that the “comet-tail” title on the cover is a very happy return to the old system and we certainly shall con-}

inue it. We have the possibility of increasing the size of the magazine in mind. Your compliments to the editorials we are almost reluctant to print, but we are more than glad that they please you. We shall keep in mind what you say about stories relating to astronomy. Your letter certainly does credit to so young a critic.—EDITOR.)

A Suggestion for a Science Fiction Journal in England

Editor, Amazing Stories:
May I take this opportunity of writing to congratulate you on your splendid magazine, and at the same time say a few words on the question of a science fiction journal in England.

A feeble attempt to start a science fiction journal in this country was made a year ago. This was only a twopenny weekly and lacked the atmosphere of the stories found in your journal. It therefore fizzled out after six months. But while it existed, and although its stories were of the “mad scientist conquering world” variety, it received nearly a lot of fan mail, so much in fact, that if a magazine of the type of Amazing Stories was to be started in England, half the population would go crazy with delight, and the offices would be one mass of letters of congratulation.

However, to be serious. I think it would be a good idea were you to dispatch a large number (mind you, I said large—one has to have the integrity of an interplanetary-explorer to get hold of copies here, and when one does get a copy, about 30 friends want to borrow it) of copies to a distributing office in London, from which they could be sent to the news agents through the usual channels, and where they would be as easy to obtain as an ordinary English journal.

In concluding, may I utilize your space a bit further to inform those of your readers who are interested in practical science that I am the secretary of a world wide correspondence society, connecting up amateurs in this subject. I shall be pleased to forward details to anyone interested.

Wishing that your copies were issued daily instead of monthly, and hoping that you will do something for us science fiction starved English, I remain

Douglas W. Mayer,
20, Holin Park Road,

(The writer has a most sincere desire to see an English Amazing Stories. The old English Mechanic used to have a great part of its text made up by readers who seemed to take a great personal interest in the magazine and they really made quite inter-
estinging reading as well on account of the curious productions that some of them were as for the real value of others. We have an English agent whose address is Atlas Publishing and Distributing Co., 18 Drive Lane, Fleet St., London, E.C. 4, England.

Some Notes on Foreign Letters

Editor, AMAZING STORIES:

I am glad to see that you have taken on a new complexion lately, the letters published in your pages being now devoted to sensible criticism and logical discussions over stories, rather than so many "ballots" and "votings," etc. I was distressed, however, to see a larger number of letters from England and foreign countries in the October issue than those from the United States. What is the matter with our fans in the U. S. A.? Have they ceased to write, or has the Editor's appreciation of British, Australian, and Canadian letters misled him into omitting those from "home" in favor of the former?

Discussions, you are tacked on to the back of a magazine which is growing slowly but steadily better, from cover to cover, Morey included. But they both have a long way to go yet, to reach the old peak.

Through your columns, I'd like to speak to the Editor on a few topics.

Mr. Editor, I always thought that the month following August, was September. Evidently, I was wrong, however, if the latest issue is to be believed. August was VOL. 10, NO. 5; VOL 10, NO. 6, is October. Since my birthday is in September. I am now in the same fix that the fellow born on February 29th was, only much worse.

Morey is to be complimented on his October cover, the best I have ever seen by him. Well, here's hoping that the "comet-tail" will follow you through undreamed-of success and prosperity. You led the way to Stf., AMAZING STORIES, maybe you'll lead again soon, who knows. Lick *****, and you'll be at the top.

I should like to say that I shall be more than glad to correspond with anyone, about anything; who would be willing to write a none-too-bright 16-year-old boy.

CLAIRE P. BECK,
P. O. Box, 27,
Lakeport, Calif.

(Your letter is quite charming—a bit of biography is very interesting for us. It is within very few hours that the thought you expressed about the two favorite authors also came to us, and we shall try to do what we both desire. We have not given stories by Jules Verne or Poe for many months. EDITOR.)
A Discussion of the Rôle of Science and of
Science Fiction in Relation to Humanity

Editor, AMAZING STORIES:

The solidity of a good piece of literature attains its peak when it is revealed in the pages of a publication which has adopted it for a standard. In the cause of periodicals this is especially true, as it keeps repeating it on and on, in an exemplary form. But this is what I would like to know: who is it that keeps this round going, the magazine or the lover of fiction? Sometimes I feel that I solved it through the several problems that demand the solution, especially when I read, for instance, what the hero says in “Moon of Acturus,” by Richard Toker, June, 1935 AMAZING STORIES, “will avail your attempts, they are for nought, you villain you (or something like it) beware, you had one less gland graft than I, set you loose.” And where, can you tell me, is there more originality, tied and trussed up with basal science, than here. That’s the beauty of it! Now there are two things we are up against: the reader believes in it, because he may know something about science, but how does he explain the gland graft and its sustenance as a part in his mental security, as when the hero asserts that he is so sure of himself on account of one more gland graft.

Psychoanalysis may be called on to be the authority, should we attempt to lean toward a solution. But I don’t believe in psychoanalysis. To graft a gland or when an extract is injected carries a greater conviction for me in deciding things. Immediately the state it creates, furnishes enough proof. Two forces may remain irreconcilable but the one attains the stage of a law when it is able to control some other state. In the instance of the gland, this is the cause, as the mental cause depends on the gland and not the opposite.

What indeed has one’s mental state to do with the organic entities. If it is given to appearance to substitute illusion, then our attention should divert toward the lines of reality. Appearance as Reality carries also weight in literal meaning, when we look for it. A piece of literature, for instance, is satisfactory, besides the purpose it was designed for, also as an indication of the character of the writer. Now, if I have the feeling of pain, should I call it only a pulsation of some purely organic expression, or is that the fact? Spanning the division where the dominion in the mental sphere is attained, should we not assume the fact that a gland, being able to control it, is able to effect its purpose through the retinue of the organic processes it has employed in the pain-pulsation phenomena?

It is a chemical formula and therefore no function can be expected from it. Fixed by such definition, its expression as a pulsation of pain, holds as an entity in its own sphere—of matter only. Where the mental sphere becomes subjected is perhaps where the very origin of its own function originates.

We must take it up from another side. Its function of pain in the sphere of organic matter relegates it, when in the mental sphere, to a law, by the force of its energy; pain requires energy. Also the mental function is dimensional, if it is a sphere where functional processes are changing in their character. The character of a person is a given bundle of organic events, and I hate to see a person, if he be embodied with certain mental abilities, undergo any kind of physical operations, in disease or through science. To me it is an indication of a mental as well as physical change, and also personality change. The character of a face, of eyes, etc., has engraved itself upon my memory from an impression and if so, what are the bases of its formation—the formation of these features that compare favourably with the mental state of the owner—there must be some! I see a man in anger and he whips out a knife at the same time! That’s another coordination.

I call organism matter, because it defies conscious interpretation—but it lives! I retain reservations that a non-existing entity such as pain is, finds other employments for its use. Now, what if the logic of abstractness, which we know through its establishment as reason, is also the logic of organism or parts of its organism? Now, if I set out on a world tour of abstract theories of which a Newton or an Einstein is the hero, I am sure that, with the elimination or change through conscious control of certain organic entities, which point toward the function of this abstract logicism, the entire value that produces this logic becomes zero. Therefore, theory and the values that produce it are changeable. The form of matter as a whole, is the material from which different shapes or characters of mentality can be wrought, but ego, character, personality and mental states change.

I will now add that the one logic which will not die, is the one that will terminate in proof, not through expressions that are clothed in mental terms—that’s no proof—but through an organic point, whence we can consciously control other states. To make short work, it will mean the making of another Newton or Einstein, or at least men with abilities resembling theirs, at our will, through intelligent control. I don’t mean creation, but use of the organs already in
function. This and possibly foretelling the individual's destiny as its result.

The prevailing conditions and the retainers of our opinion have given indications that if anything like it is to take place on earth—something to solve the fate of humanity—it will be, science-fiction that will appreciably welcome it, as the medium for its announcement to the world.

H. WEISSMAN,
163 West 21st Str.
New York.

(This letter certainly indicates a probing into the factors of our existence. We will let it speak for itself.—EDITOR.)

Another Fourteen Year Old Reader Gives Positive Ideas and Complimentary Criticisms

EDITOR, AMAZING STORIES:

I've just finished the June issue of "our mag" and I find the stories, serials, etc., very good. Of the complete stories, here's the order in which I think they belong. 1. "Six-Legged Gangsters." 2. "170 Miles a Minute." 3. "Moon of Arcturus." 4. "The Phytic Empire." 5. "An Astounding Announcement." The last of these five is all right, but there is certainly nothing "amazing" about it.

Of the two serials, I can't say which I like the better for they are both excellent.

Now the cover. Do you think that some 13,000 years hence, such a flying machine as is depicted on the left, would be in use? It's only about 75 or 100 years in advance of our present day autogiro. And as for the man looking out of the window, I don't think he should smoke a pipe. Most likely such an old instrument would be entirely forgotten, or if not, I'm afraid many museums would be willing to pay a good price for such a thing. Omitting these facts, I think the cover is "O.K." I have not been taking the magazine long enough (I am only 14) to have seen any of Wesso's illustrations, but Morey is good—keep him.

The other departments of the magazine are swell, and greatly increase the pleasure I get from reading this stf. book. One more thing, don't give us Poe or Verne. Ugh! bah! poopy! They were all right in their day, but that's not now. Well, it's time for me to pack my suitcase if I want to catch the next interplanetary cruiser for Venus, so, goodbye for now.

RAY NEIR,
Suite 6 Clarence Court,
Winnipeg, Manitoba,
Canada.

(As far as reprints from Poe or Verne are concerned, we have given none for many months and have no intention of giving them in our pages after this. As far as the design of flying machines thirteen thousand years in the future is concerned, we cannot pretend to be judges and whether tobacco will still be in use then we do not know, but some of us, at least, will be glad to see the time when ladies will not smoke cigarettes. We are glad you appreciate Morey; he has been doing excellent work. You missed the error in "170 Miles a Minute," the decimal point was missing.—EDITOR.)

A Rather Severe Critic Writes About Science Fiction Stories and Writers

EDITOR, AMAZING STORIES:

Before I make any comments on your August issue, I should like to clarify my ideas about the s-f printed in magazines at present. In the first place, when a writer takes over the tremendous ideas of science fiction, he should be sure of his ability to put those thoughts to words. E. E. Smith, in his "Skylark" stories, is an excellent example of what I have taken up above. It took a great deal of intense concentration to fathom those scientific principles. However, if even the best of the contemporary writers cannot develop the tremendous ideas supported in their stories, this point has to be overlooked partially.

On these grounds, the author of "The Never-Dying Light" can be excused, although I think other writers could have handled it better. The opposite of this applies to "The Music of the Spheres"—while it was written well enough, the thought or plot could have been handled with greater skill. I have nothing in the way of brickbats against the other stories, so I will merely add that "The Inner World" receives my vote for first place with "The Kingdom of Thought" and "The Golden Planetoid" tying for second place.

Now a word about your critics before I end this letter. It seems to be the opinion of sophisticated critics that the edges, quality of paper, and type are unimportant. On this, I must disagree with those readers. It lends a better appearance to the magazine and saves the collectors the bother and cost of putting their collections in a half-way decent shape. So, if you consider this letter worthy enough to be printed, I should like to hear from those on both sides of the case.

This letter is not very long, but I had better end it now, before I think of anything else to add to it.

RAYMOND HOOD,
SFL FC Member No. 900,
Some Corrections of Errors in a Recent Editorial

Editor, Amazing Stories:

I have been reading Amazing Stories since September, 1928, but haven't had the pleasure of writing in till the present. I have noticed a decided improvement on the stories since that time, but of course there is bound to be some black sheep in such a large family of stories.

The real object of my letter is this: While browsing through my collection of science fiction mags, I came across the June, 1934, edition of A. S. This may sound to you like digging up the supposedly "buried hatched," but as it struck me as very queer to see an error in an editorial, I couldn't resist the temptation of writing in.

In the editorial, "Old Time Problems in Mathematics," quite an obvious error was made. Probably some one has already sent in about this. I quote:

"The number two ought to be very simple, but if you try to extract its square root you will get another decimal without end. It starts off as 1.441402 . . .

Any student of mathematics knows that the square root of 2 is 1.413218 . . .

In another part of the editorial concerning, in a right triangle the sum of the squares of the sides equals the square of the hypotenuse, I found this statement.

"The numbers 3, 4 and 5 can be most usefully applied in many such cases as the above. But let the reader try and find three other integral numbers, numbers without fractions, the sum of the squares of two of them equalling the square of the third."

Now the numbers 5, 12, and 13 (and their multiples), work the same way. 5 squared is 25 and 12 squared is 144. 13 squared is 169 and 25 plus 144 equals 169.

Speaking of mathematics, here is a sentence which enables one to find "pi" to 7 decimal places by counting the letters of each word. "How I want a drink, alcoholic of course." 3.1415926. Now if any body would like to know "pi" to 30 decimal places, just count the letters of the words in this verse.

"Sir, I send a rhyme excelling In sacred truth and rigid spelling Numerical sprites elude feminine. For me the lesson's dull weight. If Nature gain Not you complain Tho' Dr. Johnson fulminate." 3.141592653589793238462643383279

Now more about Amazing Stories. There are three parts of our mag that are indispensable. They are the Editorial, the Science Questionnaire, and Discussions. The editorials are always very interesting and give one food for thought.

In reading A. S. there is one story that will always stay foremost in my mind. This is "Seeds of Life," by John Taine which appeared in a quarterly. It certainly had a wonderful plot and contained plenty of scientific facts. I regard this work as a modern classic. By all means give us more of John Taine's stories.

I close this letter by wishing Amazing Stories loads of luck.

Roy Koski,
Rt. No. 1, Box 287,
Vallejo, Calif.

(We thank you for the corrections. We do not know how the error in the square root of 2 was produced. The general idea of 3, 4 and 5 being the "right angle triangle" numbers, they may be called classic, is that they differ distinctively from each other. Thus 5, 12 and 13 come too close together for practical use. Your verse is most interesting. There was another numerical error in a recent number which could have been set right by a decimal point or the cancellation of a zero. Alexander Pope says "To err is human, to forgive, divine." You must perpetuate the second clause. Editor.)

An Appreciation from England

Editor, Amazing Stories:

Although I have been reading your magazine since 1929, this is the first time I have ever written to you. I have just finished "Liners of Time" in the July issue, and should like to congratulate P. Fearn for its conception, and yourselves for its inclusion.

You can publish as many "Time" stories as you wish, and still keep my custom, as I consider this subject to be about the most thought-provoking of any science-fiction. In discussions this month I see that a co-patriot of mine is inquiring about not being able to obtain copies of A.S. in this country. For some considerable time now, I have been getting copies of all three science-fiction magazines from your London agent.

George Reeves,
13 Balmoral Rd.,
Westcliff-on-Sea,

(We receive a great many letters from English readers. We also have correspondents in the Antipodes. Sometimes we wish that the United States would be more active. But it is very pleasant to have world wide correspondence. English correspondents generally like us; we might hazard the statement that Australian and New Zealand letters are always appreciative. Ed.)
How AMAZING STORIES Should be Edited

**Editor, AMAZING STORIES:**

Despite evidences to the contrary, I am intelligent. Astounding though said statement may seem, I am taking it upon my shoulders to assume a reader-interest “we,” and thereupon jump all over your vanity and self-assertion, and tell you a few things you should know about AMAZING.

And before we start, you might as well tell that secretary of yours—that secretary that is doing such a good job of selecting stories for the recent issues (and thereupon I gain the favor of said secretary)—that this was not meant for Discussions, although, of course, she will immediately see its merit, and insert it therein.

Firstly, I don’t like your plagiarized titles. Pardon the word “plagiarized.” I intended “repeated.” What I am referring to is “The Moon Men,” which title was used previously by one Frank J. Bridge. It raises— with an index.

Second, Thirdly and Fourthly, you’re conducting the Discussions wrongly. And so forthly. As you have been told previously, we all read this column first. Not for the babblings of the deluded readers, but for what few and far between answers you might choose to bequeath from yourself to various questions asked by said correspondents. And yet you sit back, putting yourself admiringly on the back, and reply with some phrase, used perhaps fifty times before, thereby gaining more vanity. In August, one friend, calling himself Arthur L. Widener, Jr., raises several questions worth answering. As does C. A. Parker. And Albert Field, Jr.

Particularly, Mr. Field’s first statement. As to why we cannot get evenly trimmed edges.

And don’t give us that old balooey: WHY NOT?

The Discussion division with letters and answers is the most interesting part of the magazine, and that being the editorial answers to letters. Now, right now, this minute, get that commentary idea out of your head, and write something interesting after those letters. Those long-ago discussions wherein the comment riveted the letter proper in length, were real discussions. Now, today, they’re one-sided comment.

And then you go off and give us six good stories. Now that’s a heck of a way to treat us, giving us six really interesting stories all in one issue. Aren’t you afraid you’ll run out of good stories?

And then you turn right around and start off with those confounded full-page illustrations again. And right after we commented so highly on those little column-wide sketches.

The trouble with Morey is that he needs competition. Dag nab. He hasn’t changed his style for nearly a year. You oughta go slick, and give him a chance. But that wouldn’t do. Yes, you’ve convinced us the small size is better. But that does not let up on that smooth, even edge question. AMAZING STORIES is merely putting a model T body on a V8 motor. Sure, we all know real literature exists inside, but you could not tell a stranger that. Naw! Shux—he says—just more pulp trash. AMAZING is just as literary—its editor just as much of a literateur as other editors—but again try to tell a stranger that.

You’ve got the best cover arrangement you ever had. So bring up the rest of its format to equal your literature and cover. Use more of those small sketches. Watch out—or he’ll go stereotyped like Paul did, and still is.

Your editorial this month (August) was the best yet. Those lectures add much to AMAZING that others lack. Make it even more a real treasure, and gives you good reason to compare AMAZING with Atlantic Monthly. Several months ago, said comparison was odious (unquote). But today, it is highly permissible. In fact, Atlantic should be proud to compare itself with AMAZING.

Your policy now in use in the face of competition seems to be the sound one. I am not so sure this radical departure into unexplored fields of science-fiction will bear the fruit they expect it to. “Interplanetary” seems to be an abandoned theme with many magazines. As with aforesaid old Ford, so with science-fiction. One would not be inclined to throw away the whole apple, merely because of a blemish on the skin of it. Killing the old regime in science-fiction, and supplementing with something new, will last just about as long as a government that follows those lines of reasoning. AMAZING is keeping the old themes, but with new angles, and waiting for adversaries to run themselves ragged with socialism, as that twist in science-fiction might be called. Conservatism will win out in science-fiction, just as in government. Flamboyant departures into new fields may end up in the middle of a desert. And their new life-blood of science-fiction may turn out to be water.

I cannot help but be proud to recommend AMAZING to friends who, I know, appreciate good literature. If the Australian teacher yields to the dime novel, AMAZING should be guild selections to him.

But think over again this even edges
question. It may be much more important in sales than you might think.

LEWIS F. TORRANCE,
1118 Fifth Avenue,
Wichita, Kansas.

(You speak of our immediately seeing the merit of your letter. We are inserting a letter which you say was not meant for discussions. Perhaps you will enjoy its appearance here in spite of your disclaimer. It would not interest the majority of readers if letters with single or isolated themes were answered categorically. It is easy to find fault, a letter may be full of fault-finding. Then the problem is to avoid such failing, for it may be so termed in the answer. Your letter will speak for itself so fully that it needs no comment. We would like to have you think well of us. We suggest that you try it. Certainly no one can object to our giving six good stories. Full page illustrations have been an accepted feature of AMAZING STORIES for many years. We entirely agree with what you say of conservatism. Editor.)

A “Sharp Letter” from an Ex-Reader of AMAZING STORIES

Editor, AMAZING STORIES:

I would like to have this letter printed in “Discussions.” I want to see your comment on it and also get the reactions of fellow readers.

AMAZING is now the highest priced science-fiction magazine but the stories contained in it are far from being of highest quality. To be frank, AMAZING is not worth its price.

I am writing to give you some tips in improving the magazine and so make it catch up with other similar publications.

Stop publishing satirical stories. Science-fiction is supposed to be serious and instructive—not mocking. (Stanton A. Coblenz take notice!)

Stop printing stories dealing with time-travel. Science-fiction is supposed to be logical. Can anything as impossible as time-travel be logical? Science-fiction stories are supposed to be built around some real fact or sound theory. How time-travel stories can be contained in any science-fiction magazine is beyond me. Time-travel is nothing but a foolish, fanciful dream. Anyone who thinks otherwise deserves a place in the nearest crazy house!

I’ve been telling you what not to publish, so now I’ll tell you what you should print more of—it’s the interplanetary tale. I don’t mean the unreasonable kind. I mean the logical, realistic, interesting type of interplanetary story.

Stories like these make science-fiction worth while. Why can’t you put out yarns like that instead of the absurd tales that now clutter up your magazine?

Even your art work is of low quality! Your sole illustrator, Leo Morey, is not very good. You do not want to let him go because he has been with AMAZING for a long time. All right, keep him then, but employ a good artist to make the magazine more interesting. Morey’s work is always dark and dull. He should only illustrate one or two minor stories and you should get that old favorite, H. Wesso, to illustrate the major yarns and the cover. Wesso is still drawing because I saw two pictures by him in a recent issue of the Sunday News—a New York weekly paper.

This letter may be somewhat sharp but it is written for your own good. If you act on my advice there will be new life to AMAZING.

I have stopped buying AMAZING and I won’t start again until it is greatly improved. I happen to be the sort of person that wants his money’s worth!

CHARLES PIZZANO,
11 Winthrop St.,
Dedham, Mass.

(We publish your “somewhat sharp” letter as you call it, having made some efforts to make it less personal. The mystery brought out in the concluding lines is quite impressive. If you do not buy the magazine, why do you criticize it? You put the above (not buying it) almost like a threat. Even if AMAZING STORIES costs twenty-five cents, it can stand the loss of one reader. What is one man’s meat is another man’s poison. We may apply this to your criticisms. The stories which many of our readers praise meet with condemnation from others. The point about such a letter as yours, is that you take it for granted that you are right and that those who like AMAZING STORIES are wrong. What is to be done? Editor.)

Comfort to-day. Scolding to-morrow.

Editor, AMAZING STORIES:

“Extravagant Fiction Today.... Cold Fact Tomorrow”—No, this time it is: Fiction Yesterday—(I can’t say “extravagant” as it seems so simple now)—Cold Fact Today! I just finished re-reading “The Singing Moonbeams” (A. S. Quarterly, Summer 1929) by E. S. Sears—a story of modulated light-beams. That story WAS fiction I thought taking “Radio-Craft,” April 1936,
from the shelf and opening it at page 585 .... There the story is FACT! I suppose you know all about the talking headlight of the Union Pacific streamlined passenger train better than I do, but you surely forgot the Singing Moonbeams. That's why I am writing these lines.

In Discussion the readers cast their votes pro and con various points and you, Mr. Editor, after carefully weighing the opinion of your readers, sometimes act upon the public's suggestions and sometimes you do not. Therefore, as it might happen that you go back to the large size, as you might fire Mr. Winter, as you might reprint more Verne, etc., etc., I feel it to be my moral obligation to add my humble opinion to Discussion. Otherwise, the enemies of the small size, the maniacs about crazy colours on the covers, etc., etc., might get their purpose.

1. Small size is O. K., though OUR pockets are only 6" by 7".
2. Edges, smooth or not smooth, do not matter.
3. Morey's legs are better too thin than too fat!
4. Morey's covers are better than Paul's.
   The colour combinations ARE possible and do not hurt the eye. Best cover since Oct. 1938, is March, '35. Dullest cover is June, '35.
5. "Comparisons are odious!"—but—A. S. IS the best stf. mag. in spite of anything printed on the cover of your competitor.
6. NO MORE Verne, Poe, etc., etc.
7. Other reprints, e.g. Skylark, are all right (by the way, I have got the Skylarks!)
8. NO weird or horror tales!!!!!!
9. Notes at end of story as "170 Miles a Minute" are very convenient as they indicate that the author took "poetic license" with scientific facts. Absence of the note would mean that the author made an error and that the editor overlooked this error.
10. Now and then a sharp or ironic answer by the Editor when commenting upon letters would be like adding pepper and salt to Discussions.

HANS J. LESSER,
Rio Segundo, P. C. G. A.,
Argentine Republic.

(Many of our contemporaries publish letters from correspondents and very seldom publish answers from the Editor. Your letter is so much to the point that it needs no comment. We are always glad to hear from distant places. The Argentine is a sort of intermediate locus scribendi. The "Normandie" would make it in a few days. We have received many letters from England and her colonies. New Zealand and Australasian points in general are about as far off as can reasonably be expected; say 12,000 miles great circle going or about 8,000 miles if you could go direct per terrestrial diameter. We shall hope for more letters from you.—Editor.)

A Reader Who Began at a Very Early Age

Editor, AMAZING STORIES:

When I opened my October, 1935, copy, I opened the best collection of science-fiction for many issues. Especially was I pleased to see another of J. W. Skidmore's Posi and Nega. Neil R. Jones—Prof. Jameson stories; Bob Olsen, and J. Skidmore are three of your best authors, and the more I see of them, the more I am proud to be a reader of A. S. The Posi and Nega series is the most educational series ever printed in A. S. (In its own field of course.)

The new (or old) streamer title makes the cover of A. S. the most interesting and unique on the newsstand.

T. O'Connor Sloane's editorials are very interesting, and a number of times I've used their material for school thesis.

I am 16 years old and have been reading A. S. for seven years.

Till the November issue comes out,

Auf Wiedersehen.

WILBUR WIDENER,
205 2d St.,
West New York, N. J.

(The interesting thing about this appreciative letter is that it discloses that we had a nine-year-old reader seven years ago. There is no more difficult piece of writing than a production which will attract the young. If it is really good it will attract the older readers; Lewis Carroll and Milne are examples of this. We can assure you that plenty of work is put into the magazine. You have read us for many years and we appreciate it. Editor.)
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But soon they changed his ugly nickname

We brought you some Mann's Yeast Cakes, do give them—and skin—a chance!

Oh, ah! Right, Sid—anything to make you quit nagging about it!

For the love O'Mike—if it isn't old pimply face—in disguise!

Sure as I'm born—what happened?? Have to start calling you handsome now!

Two weeks later

Two, three, four, five—Miss/Pam's Your Face?

Don't let adolescent pimples brand YOU with a hated nickname!

Between the ages of 13 and 25, important glands develop. This causes disturbances throughout the body. Waste poisons get into the blood and irritate the skin, making it break out in pimples.

But you can clear these skin irritants out of your blood with Fleischmann's Yeast. Then the pimples disappear!

Eat 3 cakes a day, before meals, until your skin is entirely clear. Start today!

clears the skin by clearing skin irritants out of the blood
When I say that these are the greatest values that we have been able to offer in 50 years, I am ready to prove it. Even my father who founded this business 56 years ago—in the days of low prices—could not have done better. Look at these beautiful new rings and watches—look at the low prices. Let me send you your choice on money-back guarantee. Here's how you do it. Simply put a $1.00 bill in an envelope with your name, address, number of article wanted and tell me your age (must be over 30), occupation, employer and a few facts about yourself. This information will be held strictly confidential—no direct inquiries made. I'll open a 10-month charge account for you and send your selection for approval and 10-day free trial. If it isn't all I say about it and more—send it back and your dollar bill will be refunded immediately. If satisfied, you pay the balance in 10 small monthly payments that you will never miss.

A1/C6—Bridal Ensemble at a low price. Both rings carved to match in 14K white gold, 5 diamonds in each ring, $3.15 a month.

A2—Stunning flower design in 14K natural and white gold. High-quality brilliant diamond. $2.10 a month.

A-101—Sworn Perfect Diamond. Select this dainty 14K white gold engagement ring—diamond is perfect. $4.90 a mo.

A12—Men like this 10K yellow gold initial ring with initials and diamond onyx $1.60 a mo.

A204—Smart engagement ring in 14K white gold with 5 high quality diamonds. $3.90 a month.

A127—Men like this 10K yellow gold initial ring with initials and diamond onyx $1.60 a mo.

R1—Bulova with America—A dainty watch with possibility of case, 7 jewels. $2.15 a month.

R4—Lugger Bulova watch. New round style. 7 jewels. Black silk card band. $18.75

R5—Bulova Commodore—a new round watch for men. 15 jewel movement. New style link bracelet. $2.38 a month.

R7—Bulova Ladies. Kent round style at special low price. 7 jewels. Black silk card band. $16.50

R8—Kent round style watch for men. Modern dial, 7 jewels. Smart link bracelet. $15.95

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