# FINMEILB STORY MAGAZINE JULY 25c 

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## A DEPARTMENT WHERE SCIENCE-FICTION READERS AND THE EDITOR MEET

ANOTHER bubble has burst, another illusion been destroyed.
Chlorophyll has been debunked.
This will come as a crushing blow to the younger set, whioh fondly believed it had rendered its breath kissing-sweet by five minutes of chewing chilorophyll gum.

But the implications are nore serious even than this. A huge new industry, busily implanting chlorophyll into every product from mouthwash to innersoles, totters on the brink. American ingenuity stands with its back to the wall. And Science; the handmaiden of business, gets a black eye.

Being afflicted with a perverse sense of humor, we happen to find all this very funny. For, having observed the progress of many similar booms and busts, we believe that American industry will happily count its profits from the chlorophyll boom and next year bounce into something new and equally promotable.

In this respect, American industry derives its quality from the mercurial temperament of the American people itself. Few other nations push a boom so far, so fast, and tire of it so quickly. A new song sweeps the country in a matter of weeks. For an agonizing period it is on everyone's lips; the airwaves are full of it, juke boxes belabor it tirelessly, millions of records. and music sheets are sold. Then abruptly everyone is sick of it and it is gone.

We do it with people too. Last year Dagmar was the password ; this year it is Marilyn Mon-roe-though by the time this reaches print it may be someone new. It has always been our conviction that the assassination of Huey Long occurred when he had reached the peak of his notoriety, and had he been let alone, he would have started down from then on. As a people we simply do not seem to be able to sustain our enthusiasms for long and this may be due to the fact that we get them too high too soon.

Now this may not seem like a completely admirable trait. Yet it has been the saving of us before and will be again. For one thing it makes the job of any would-be dictator just that much more difficult. The weapon of a dictator is propaganda, and we have so good a machinery for the dissemination of propaganda that it seems made to order for the purpose. But its efficiency bears its own seed of destruction. There have been any number of little tin gods who arose in American political life and threatened to become a menace. They had their day-they attracted millions of listeners-and they faded.

Which brings us back to science fiction and the recurrent theme of dictatorship in many science-fiction stories. It seems odd to us that so many writers visualize the far future in terms of the past-kings, emperors, dictators, oligarchies or what have you. At least one distinguished scientist, Sir Charles Darwin, shares this viewpoint. We are not convinced. If this be optimism, so be it.

But to get back to chlorophyll, about which you are presumably wondering all this time. A. team of Scotch scientists, appalled at all the money being spent for chlorophyll chewing gum and tablets, put the stuff to the acid test. They tried it out on onions, garlic, perspiration, various foul gasses and a skunk. The result, they report, is that so far as they can tell, chlorophyll appears to have no deodorant properties at all. A full report appears in the British Medical Journal. Apparently in these tests chlorophyll either did not remove the offending odors, or in some cases, as when tried on slices of onion, combined with the material to form a worse odor than before. As a final test, Dr. Brocklehurst, of the department of Materia Medica of Glasgow University, talked some of his cot leagues into joining him in swallowing' twenty*
(Continued: on page 136)

# You Can Influence Others With Your Thinking! 

TRY IT SOME TIME. Concentrate intently upon another person seated in a room with you, without his nollding It. Observe him gradually become restless and finally turn and look in your direction. Simple-yet it is - postluve demonstration that thought generates a mental onerty which can be projected from your mind to the consclousness of another. Do you realize how much of your success and happiness in life depend upon your Influencing others? $I_{s}$ it not important to you to have others understand your point of view-to be receptive to vour proposals?

## Demonstrable Facts

How many times have you wished there were some way you could impress another favorably-get across to him or her your ideas? That thoughts can be transmitted. recelved, and understood by others is now scientifically demonstrable. The tales of miraculous accomplishments of mind by the ancients are now known to be fact-not fable. The method whereby these things can be inten. Uonally, not accidentally, accomplished has been a secret long cherished by the Rosicrucians-one of the schools of ancient wisdom existing throughout the world. To thousands everywhere, for centuries, the Rosicructans have
privately taught this nearly-lost art of the practical use of mind power.

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A Page of News from the Science Front

THE WOOLLY BEARS WERE WRONG last winter. The furry brown caterpillars had seemed to be such good weather prophets that even reputable naturalists were taking them seriously. But last winter cooked their goose. The woolly bears, which predict the weather by the size of the light-colored band around their middles, insisted that last winter would be the coldest in five years. But official records show it was the fourth warmest in the history of the Weather Bureau.

THE MIGHTY MALE has suffered anoth er damaging blow to his prestige. In a London laboratory a fish known to millions of youngsters as the guppy, has given birth to young by parthenogenesis. Thirteen cases in all have been recorded-all the thirteen cffspring being female. A poll of available human females on the occasion indicated they took a dim view of the proceedings. "It's nice to have a man around the house," seemed to be the consensus. Relax, men.

FLUORIDATED CHEWING GUM to cut tooth decay is the latest product of the laboratories. Fluorine taken this way, or in drinking water, is alleged to reduce caries considerably in children. Adults, whose weth have already formed and hardened, are not helped appreciably. But for youngsters of about four, a stick of this gum a day is claimed to be as effective as fluorided water, which some municipalities are introducing.
AN ASTEROID MOVING AT HIGH SPEED came close to earth during March, 1953. Astronomers were unusually interested in it, but others who might have been interested would be the space satellite men, for whom such an asteroid might solve the problem of carrying heavy materials into space to build a platform. What better platform could there be than a nice handy asteroid?

CHLOROPHYLL, THE BASIS OF PLANT LIFE, may have been created accidentally on earth billions of years ago. In a test at Ohio State University it was demonstrated that carbon dioxide, ammonia and water, heated over silica, produced porphyrin, which is structurally like chlorophyll. Since earth contained these gasses, plus plenty of heated rocks with silica content, there is some support for the thought that plant life may have thus been given its start.

TRANSISTORS ARE MUCH IN THE NEWS and transistors are made of ger-manium-a metal which can be "grown" in laboratories. Lead mines yield the raw material, an oxide which reacts with hydrogen to produce a germanium powder. This is then melted and a small nub of germanium dipped in the molten metal, which crystallizes upon the nub. By withdrawing the nub and rotating it slowly, the crystallization takes place evenly and the crystal grows. A "grown" crystal of this type is more desirable because more uniform and because it is then interchangeable with others made the same way.
EVEN FISH OUTSIDE GOLDFISH BOWLS HAVE NO PRIVACY. Canadian naturalists are using underwater television to spy on fish in Lake Minnewanka. All they have discovered so far is that trout may lay eggs as deep down as 80 feet.'. Examination of the lake bottom promises interesting results.
METEORS AS WELL AS COMETS leave trails in our atmosphere, it has been discovered. The trails are ionized air and can be seen through the radio telescopes used at Stanford University. The trails are from 15 to 30 miles long and are definitely not the exhaust jets of flying saucers.

—Dixon Wells

## A Novelet by JOEL TOWNSLEY ROGERS

## TJJTOU的 ThJs

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published in June, 1943, Thrilling Wonder Stories

For twenty-nine years he had always concluded the course in Senior Math with the same little discourse. It had become a tradition, with generations of graduating seniors at Stratton High, like the Senior Woggle. Old Prof Gouf and his lecture on the fourth dimension.

Today, however, he was giving it for the last time, although none of them knew it. There would be no more classes in Senior Math for him at Stratton High, nor any place else, he was afraid. Principal MacGlurk and the Board of Education had not renewed his contract. And since middle-aged, ineffectual high school mathematics teachers are far more plentiful than jobs, little Noel Gouf knew that he was finished.
"Ladies and gentlemen," he said apologetically, clearing his throat.

Outside the open windows the warm, bright June afternoon dozed and hummed. Inside the classroom thirtyseven seniors of assorted sizes and shapes of both sexes settled down to their individual pursuits.
Muriel Morton had already laid her lovely head against her curled fist and was off day-dreaming. Billy Camorra, twenty years old and six-feet-three, draped a lanky leg with garterless sock over his other knee and began to fabricate a cardboard spitball, fishing around in his pockets for a rubber band.

Blond Niles Gowambley, the football captain with the blitz haircut, turned sideways to resume the endless game of tick-tac-toe which he had been playing all year with Gloria Glick, the president of the student council. Leaping Leander Leverwaite, the hurdling track star, arose and stretched himself in preparation to crossing the classroom to shake dice with Four-eyes Ryan.

A buzz of conversation filled the air, like the buzz of bees, hornets, flies, gnats, and Japanese beetles out the windows.
"Ladies and gentlemen-" said little Noel Gouf, beaming with his ineffectual smile.

No one paid the slightest attention to
him. No one ever paid any attention to old Prof Gouf. No one ever understood anything about the formulas which he wrote down and the endless computations he made, and the diagrams he drew. It was the universal opinion of the student body that he didn't understand anything about them himself.

Still, he was a well-meaning and harmless old screwball. Give him a blackboard and a piece of chalk, and he could amuse himself happily for hours, standing at it and muttering to himself. Like a child whose fingers have been smeared with molasses and then is given a feather to pick back and forth from one hand to the other, to its endless entertainment. It accomplishes nothing but it does no harm.
"Ladies and gentlemen," said little Professor Gouf, "on this last day of our happy little class, which I trust has been both stimulating and instructive to all of you, I am going to dispense with the ordinary textbook problems and, instead, am going to discourse briefly on a theoretical world of four dimensions, as has been my custom for many years-"

For many years, he thought. And now the end of it. Suddenly he wanted to burst into tears. To be a boy again and lay his head on the lap of his mother, and weep his heart out. But a man can't cry.

Mathematics. Abstruse theories. The lovely, perfect world of intangible and unreal speculation.

HE HAD been a boy once, a big-domed boy. He had been an infant prodigy, the delight of his teachers, the pride and awe of his heavy-shouldered, tired, plodding, slow-speaking laborer father; the hope and glory of his shining-eyed young mother. He had graduated from this very high school at eleven. He had graduated from Harvard summa cum laude at fourteen.

Noel Gouf. The mathematical wizard. Written up in newspapers and magazines. Lecturing to the Graduate Facul-
ty on "The Theory of the Fourth Dimension" at fifteen.

What a lovely world, the perfect world of mathematics. Minus quantities. Multiply x to the nth power. Carry onward to infinity. Everything working out to perfection with a pencil and a piece of paper, or a blackboard and some chalk.

All that in his big dome. But what of it? The pure and beautiful world of mathematics is not a world in which a man must live, or can. Butch Sunder-
twenty-seven hundred dollars a year, giving the same discourse to a class of indifferent high school half-wits that he had given to the attentive Graduate Faculty when he had been fifteen, thirty years ago. And now he had lost even this poor job.

In that pure world of mathematics in which he had lived and dreamed, the world had passed him by. It had never had much use for him, a theoretical and impractical dreamer, at best. Now it

## Moment of Glory

THE myth of the small, meek, fantastically impractical professor continues to enjoy a vogue in certain circles of American life. Speaking personally rather than editorially, we have never met one of these types. Our own professors at college were brisk, dynamic and practical men who not only made a satisfying career of teaching, but who used the considerable leisure time it afforded them for profitable bylines.

However, with what we suspect is tongue in cheek, author Rogers has here taken the ultimate in meek professors and permitted him his moment of glory. Real or not, the revolt of the underdog is a sight which always restores one's faith in happy endings.
-The Editor
sohn had been in his high school class thirty-three years ago and had flunked out of elementary algebra after repeating it three times. He was the multimillionaire head of Sundersohn Industries now, with a half a billion dollars in war contracts.

Skiddy Merton, the class playboy at Harvard, into whose amiable bubbleblown brain little Noel Gouf had diligently tried to cram sufficient tutorial information to get him through freshman trig, was head of his own great brokerage house. He was director of thirty or more great corporations with assets of twenty billion dollars, even though he still didn't know what a cosine was.

And Noel Gouf, the infant prodigy, the Phi Beta Kappa, the summa cum, was a professor in Stratton High at
had none at all. It would have been better for him if he had never been born, with his big head, into this hard and tough and all-too imperfect world of practicality.

PERHAPS if he had been able to finish his graduate work and get his Ph.D., he might have obtained some berth on a university faculty where he could have continued his speculative mathematics. Old Hoogstetter, the mathematics head, had dryly suggested that sometime, in another thirty years, young Gouf might have his place. He might have become another and greater Einstein by this time.

Still, there are only a limited number of Einsteins for whom universities can find room on their faculties. Universities are practical businesses, run by
practical men, and such men have to think of hard, realistic matters like endowments and shrinking per cents on invested capital, and the necessity of having a well-rounded faculty, and the importance of being useful and constructive in their teaching.

A man needs only one necktie and one handkerchief in his breast pocket and is not any better dressed if he wears a dozen. So a university needs only one phenomenal abstract mathematician, only one outstanding Sanskrit scholar, one Grade A atom-smasher, one supreme authority on the life and habits of the female titmouse, and one of other kinds of decorative but not indispensable scholars, to appear sufficiently resplendent and well-dressed. Doubling the number or multiplying them by a hundred is superfluous.

Noel Gouf had not gone on to earn his Ph.D., anyway. One June day like this, when he had been sixteen years old and finishing his second year in Graduate School, his quiet, tired, plodding, slow-speaking father had collapsed at his laborer's job, digging a sewer beneath the boiling sun.

He had died in half an hour of the heart disease which he had kept silent about so long.

Noel Gouf had had his bright-eyed, worshipful little mother to take care of, with the illness which had rendered her helpless, and with the years she had to live not many. So he had left the Graduate School and had taken the mathematics teaching job here at Stratton High temporarily.

Four years afterward there had been Jessica Corlay, his brightest and loveliest pupil, and though she had understood nothing about mathematics, she had worshiped him. So he had found himself married, in the year his mother had died. And then there had been little Tommy, and in a few more years little Caroline followed.

Algebra, plane geometry, solid geometry, and elementary trig. He had been
professor of mathematics at Stratto for twenty-nine years.

And now it was ended.
II

PROFESSOR GOUF stood there at the blackboard with the chalk dust on his gray flannel suit, the dust of twenty years. With his big dome of a head and his big scared eyes. With his wistful, pathetic smile, and his terror of life.

A little man, not above five feet five. Getting older every year. He who had once been an infant prodigy, the brightest boy in all the school, the joy of his teachers, the pride of his father, the hope and glory of his mother. With all the world before him, it had seemed.

He would like to say to the giggling, slumbering, playing, inattentive class before him:
"Ladies and gentlemen, I know that I am a joke, and that my life has been a hideous failure. My boy Tom began to despise me as an impractical moron when he was no more than ten years old. When he finished high school, he got himself a job working with his hands as a mechanic. He said that his grandfather had been a laborer and had been more useful than anything I had ever been. He is now a flying instructor in the air service and with his flying pay earns more than I do.
"My daughter Caroline is a secretary in a judge's office and earns almost as much. She, too, despises me. She is engaged to an illiterate but highly successful labor politician who I think is a crook, instead of the young English professor that I wanted her to marry. She only laughs at me when I say the man's no good.
"My wife, who knows me best of the whole world, long ago came to realize that I am a man with no more common sense than a six-year-old child and must be scolded and petted and treated aocordingly. I have no pals and buddies
among men. They all know that I am a freak and avoid me. Even you pimplyfaced young rug-cutters and jivebrained morons regard me as a complete idiot. And you are right. You are perfectly right.
"I am a failure, a dolt, a clown, and an idiot. Old Jawbone MacGlurk is going to fire me because I can't keep order among you. When I lose this job, I'll never be able to find another. I can't even get a defense job. The Army would laugh at me if I tried to volunteer.
"Last week, in a mood of desperation, I mortgaged my house for everything it would carry and borrowed to the hilt on my furniture and my old car and the three-thousand-dollar life insurance policy I carry and put the money into Wall Street, to see if I could make five thousand into fifty, with all the mathematics that. I know. I put it in the brokerage house of a college classmate of mine who couldn't pass elementary trig and who flunked out of about everything else, and who is now worth fifty million dollars.
"Already, in five days, I have lost a thousand dollars of the little stake I had put in. Just this morning I ordered my brokers to buy two hundred shares of Sundersohn Industries cumulative preferred at seventy-eight dollars on margin, in a desperate effort to recoup. That was more than I had margin for, and I had to send them a check by special delivery for twenty-five hundred dollars which I do not have in the bank.
"The stock has been rising steadily for the past three weeks. It is a sure thing that within the next few days the company will declare at least a thirtydollar dividend on account of deferred payments, and the stock will rise at least ten points more. In which case, if I can hold on, I will make two thousand dollars. And sell and take my profits and get the money in the bank before that check I sent them has gone through.
"But if the declaration of the dividend is delayed a few days, the stock
may hesitate, and I may have to sell at a loss. And if by any chance it should drop too much before I can sell out, my four thousand dollars will be wiped out, and I will have nothing to cover the check I have sent them, and I will go to jail."

HE WANTED to continue his silent lecture. "I am Noel Gouf and I was an infant prodigy once, and I have a big, bulging brain. And I am of no more use than if I were an idiot drooling in a dark room. J can't even feed myself. I don't know enough to come in out of the rain.
"Thirty years ago, when I was younger than the youngest of you, I was lecturing to the Graduate Faculty on the fourth dimension, and old Hoogstretter told me that I would make discoveries which would shake the mathematical world before I was done. And here I am. You are quite right, young ladies and gentlemen. I am just a perfectly futile fool, and a joke and a clown."

But they were not paying any attention to him, and they wouldn't even if he talked like that. Nothing he could do or say would surprise them or even interest them. He was just an idiot, old Prof Gouf.
"Ladies and gentlemen," was what he did say, "let us consider briefly the possibility of the existence of another, or fourth dimension. In other words, the possibility that instead of this being a world in which everything is measured only in three dimensions, namely, width, length, and height, there may be actually one or more additional dimensions to reality which we fail to perceive because of some human intellectual limitation. And let us try to picture by diagram, if possible, what such a world would be like.
"The simplest approach is to imagine a two-dimensional world, and what it would look like to our three-dimensional eyes. To two-dimensional people, in such a two-dimensional world, a line, such as
this line $A B-\quad$ he drew a line upon the blackboard, labeling the ends of it A and B-"would be the equivalent of a blind and impassable wall. Something over which no one could climb, and through which no one could look. As solid and impenetrable as the brick wall behind this blackboard in front of me. Yet with our three-dimensional perception we can see on both sides of this line AB at once, of course, and we would find no difficulty at all in traversing it.
"Here is a two-dimensional room, ABCD--" he drew three more lines on the blackboard, making a square on the line which he had previously drawn, and labeling the additional corners $C$ and D_-"in which the two-dimensional inhabitants would feel themselves as shut off as we feel ourselves in any threedimensional room. Pulling down the shades, they might undress and go happily to bed, quite unaware that threedimensional people could see into their shut-in room as easily as if the walls did not exist.
"So in all the acts of their lives, because they could perceive only two dimensions, they would have a feeling of impenetrability which would be ludicrous to us with our three-dimensional perception.
"Let us try to pieture a four-dimensional world, and what this three-dimensional world, as we see it, would look like to people who have the perception of such a fourth dimension. To anyone with such a perception, we would be as exposed inside a closed three-dimensional room, like this classroom, as our twodimensional people would be to us inside this square.
"A person with the fourth-dimensional perception could see and reach through what seems solid and impenetrable to us. Could step over and through or between these walls in the same way that we can step over the lines of a twodimensional square.
"Is there such an additional dimension to reality, and do some men have
perception of it? There have been meghcians such as the famous Houdini, who performed feats explicable by no known laws of the three-dimensional world. Such as getting out of locked steel boxes, with his limbs shackled, beneath the sea.
"Houdini always claimed that there was nothing supernatural in his exploits -but he never explained how he did them. A fourth dimension would not be supernatural, of course, if it exists. He and other famous magicians may quite possibly have happened to discover it, but decided to use it for their own professional purposes and profit rather than making it known to science.
"Let us try to diagram such a fourdimensional world. Let us take this square $A B C D$ and extend it into this solid ABCDEFGH-_" he drew legs from the four corners of the square, joining them at the top by another series of lines, like a glass box seen in perspec-tive-_"and see if we can picture-"

He had done the same thing for thirty years. The same words, the same diagrams, the same little formulae. But he felt a fever mounting in him this afternoon, an eerie feeling. Outside the windows, the murmuring of the fat June-laden insects was a soporific song. He felt the bones inside him rush and melt. An intangible trembling had taken hold of him.

AT THEIR desks the thirty-seven pupils went about their business. Billy Camorra, tossing back his raven hair that had fallen over his forehead, had made his cardboard missile, hard and stinging, shaped like a boomerang. He had found a rubber band in his pocket. Muriel Morton, with her head cradled against her hand, felt an intrusive midge, which had come in the open window, chew her leg above the knee, and put down a curved finger to lift her skirt and scratch it delicately.

Niles Gowamley's blond blitz head, bent over the tick-tac-toe paper with

Gloria Glick's auburn tresses, brushed foreheads with her briefly with one of those long, ardent looks of young love which, fortunately, are so fleeting that their bug-eyed and drooling appearance seldom registers on the consciousness.

Leaping Leander Leverwaite, the hurdling star, was vaulting over a chair on his way across the room. The electric clock upon the wall stood at just half past two.
There was that strange tingling in little Noel Gouf's nerves and in his bones. The bones, the solid flesh of him, seemed to melt and rush together.
"Let us draw this line, continuing it-"

He drew a swift corkscrewing parabola. His hand went in through the blackboard, following the swift line he had been drawing, and which had receded in.
"Well, I'll be jigged!" he gasped, dropping his chalk.

The blackboard was like rubber or jelly. More like a translucent plasm, it might be called. The chalk line he had drawn had gone in like a corkscrew, unwinding like a spool of thread, to arm's length in front of him. He reached in and caught hold of the spiraling end of it and tied it in a knot!
"Q.E.D.!' he said breathlessly. "Quod erat demonstrandum! What was to be demonstrated! Ladies and gentlemen, the fourth dimension!"
He turned around, beaming, dizzy, to face the classroom. A boomerang-shaped cardboard stinger from Billy Camorra's rubber band was coming at his face from just three feet away. The rubber was still stretched forward in its snap from the fork of Billy's fingers.

Muriel Morton's bright red index fingernail rested on her white knee, hooked in a delicate scratching gesture, an inch from a nimble and wary midge which hung motionless above her knuckle. Niles Gowamley and Gloria Glick had their noses pressed together, grinning Idiotically at each other.


He floated through the air when his legs became tired

Leander Leverwaite was just jumping over a desk on his way from one aisle to another. Six inches above the desk, with legs neatly folded, he remained motionless, as if kneeling on an invisible pillow. The humming of insects outside had ceased. The clock stood at just half past two.
"Well, I'll be run-jiggered !" said little Noel Gouf.

He had penetrated Time. Time was the fourth dimension, of course, as Einstein had always said. Somehow he had solved the enigma if it. At least, had penetrated it. He walked forward, a little dazedly, on rubber feet that seemed to have no foundation beneath him.
"Watch the old goof," he heard a voice in the motionless, silent classroom air as he moved forward.

He paused and bent his head back.
"Watch," was in his ear. He moved his head an inch forward.
"The old goof," was in his ear. He moved his head a little more forward, scooping with his ear.
"Jump when this hits him," the lazy sentence was finished.

## III

No moved. Leaping Leander remained in motionless flight six inches above the desk he had been clearing. The midge which had itched Muriel Morton remained poised an inch above her curved finger. The rubber band, snapping forward in its propulsive bound, remained motionless in Billy Camorra's forked fingers. The missile which Billy had shot remained motionless in the air.

The voice, of course, was the sound waves of Billy's voice, frozen motionless in the air. The first word he had uttered was farthest from him. The rest of them going right down to his slack, grinning mouth.

The air was crisscrossed with other sound waves, some of them tangled together like invisible coils of tape. By
pushing his ear forward, this: way and that, tiptoeing around the room, Noel Gouf could pick them up. Moving toward the windows, he could even pick up the hum of the bees again, poised motionless on motionless wings above the delphinium spikes outside.

The clock stood still. The sun stood still. Time stood still. It was the fourth dimension, and he had penetrated it!

He flipped his thumbnail on Billy Camorra's nose with stinging force.
"You garterless, overgrown, grinning half-wit," he said. "I'd like to kick you in the seat of the pants for all the trouble you've given me."

Six-foot Billy, sitting slumped with one leg over the other, continued his unchanging grin.

Noel Gouf went out the classroom door, taking a deep breath and squaring his shoulders. He passed by Principal MacGlurk's office on his way to the school front door. Inside he saw Miss Peavy, MacGlurk's secretary, sitting with her sharp-pointed pencil poised above her notebook..

Jawbone MacGlurk was dictating to her. He had been pacing up and down as was his custom, jingling coins in his hand, with his long jaw extended while he orated. He had paused in the instant to stoop and pick up from the floor a nickel he had dropped.

Noel Gouf caught a word coming out, as he tiptoed by.
"Professor Gouf_-"
He started in mortal terror. Jawbone MacGlurk had terrorized him for ten years. The man's mean, malicious mind had squeezed his brain. MacGlurk's sadistic pleasure in exercising authority and inflicting hurt had petrified his spirit. The sight of, and even the name of, MacGlurk was enough to make him cringe.

But MacGlurk was not speaking to him, of course. He was not aware of him, through the fourth dimension. They were just words that the bony, prognathous principal of Stratton High had been dictating, the sound waves of them
were projected horizontally in the air.

WITH a bent ear, Noel Gouf went quietly into the sacrosanct precincts, scooping up the motionless waves of sound and toward MacGlurk's stooped form and downward-bent countenance.
"Professor Gouf is a man totally unable to maintain discipline, and for that reason, if none other, I would find it impossible to recommend him for the position. Period. New paragraph. In the large view, he is a man of a highly impractical-"

Little Noel Gouf had followed the sound waves right down Principal MacGlurk's bent head and the tight, twisted mouth in MacGlurk's long bony jaw. He had to kneel beside MacGlurk's motionless figure to scoop in the last word which had been uttered. The rest of them were still in MacGlurk's larynx and in his brain.

He arose with a trembling mouth and tears in his eyes. He had given MacGlurk's name as a recommendation when he had applied for the teaching position at the state Defective Institution. Only fifteen hundred a year, and the life would be rather awful.

But with children now grown up and self-supporting, somehow he and Jessie might have got along on it. Now MacGlurk wouldn't even recommend him for that miserable starvation-job, after twenty-nine years.
"You-you jaw-boned old toad," he whispered, almost crying. "I feel like-"

Well, he could actually do it. MacGlurk remained there, stooped, with his rear end lifted in the air and the seat of his pants stretched tight, as he reached for his nickel.

Professor Noel Gouf lifted back his right foot and swung it with all the solidity of his short, stubby frame against the spot indicated.. Principal MacGlurk did not move, did not change expression, still reached for the nickel he had dropped.

Noel Gouf went out the ornate Gothic entrance of the Stratton High School
into the bright warm day. Motionless insects on motionless wings hung in the air. Motionless motor cars stood on the streets, with motionless blue exhaust coming from their pipes, with motionless wheels spurning the pavement.

Motionless pedestrians were frozen on the sidewalks. Motionless waves glinted with motionless sunlight on the blue little river. Motionless wind blew motionless factory smokes.

He went down the street. He went skimming. His bones were melted. His feet were bottomless and rubber. He moved at first at his brisk little pace of thirty inches to the step, but soon found that he could take thirty feet as easily, or three hundred, or any amount that he desired. That fourth dimension, which he had penetrated, made all other dimensions valueless, like the chalk line, which would have been a wall to twodimensional people.

It was two-thirty. It was two-thirty of the afternoon. The stock market in New York across the river wouldn't close for half an hour. The first and most impertant thing in his life was to find out whether SI preferred, Sundersohn Industries preferred, on which he had staked so much-every dollar he had and more-had gone up since he had bought his two hundred shares at seventy this morning, or whether it had gone down, and he was due for jail. He went skimming to the Stratton commuting station, trying to remember what was the next train out.

NO TRAINS were running, of course.
But he didn't need a train. It was hard to adjust himself to that. To realize it at once, completely. He went skimming to the Hudson's shore fifteen miles away, and across the river, skating above motionless waves, past motionless ferries, dodging motionless gulls poised over the water.

The clock overlooking the Battery and the tall towers of financial Manhattan said half past two. The sun stood still.
"It's amazing," he whispered to him-
self. "It's perfectly amazing. It's-well, it's wonderful."

He didn't need to hurry so. He had all the time in the world. Before going to his brokers, Skiddy Merton \& Co., whose offices were uptown, he might as well drop in and see the offices of the Sundersohn Industries, themselves, in the great Sundersohn building down overlooking the harbor.

The revolving doors were motionless, filled with motionless people going in and coming out. He went through the glass panel of the locked side door. The elevators were motionless, but he went up the stairs, three, and seventeen, and fifty at a time, and seven whole flights within a step.

He went through glass-paneled doors, past motionless secretaries, into the private office of B. B. Sundersohn, who had been Butch Sundersohn in his class at Stratton High thirty-three years ago and hadn't even been able to add A plus $B$ together, but had added together five million dollars.

In the directors' room, off Butch's private office, a dozen men sat around the big board table at lunch. They spooned ice cream to their mouths motionlessly. They drank from tilted highball glasses out of which no liquid poured.

Butch Sundersohn, big, bald, powerful, with shrewd pale eyes, stood at the head of the table, with the knuckles of his left hand resting on a sheaf of papers. The red point of the cigar in his right hand, which he held out before him in a declamatory gesture, did not burn in this timeless space, and yet it did not die.
"We are agreed, gentlemen, on the necessity," Noel Gouf scooped in Butch Sundersohn's booming voice as he came through the door.
"Pardon me," he murmured.
He had come through in such haste and curiosity that he had failed to notice that one of the directors was standing on the inside of the door, with his hand on the bolt, locking it. He had
come right through the man.
He was Skiddy Merton, old Skiddy with his amiable bubble brain, who didn't know what a cosine was yet, but had made a pile of money on the market, even more than Butch Sundersohn. Gouf hadn't hurt Skiddy, going through him that way. Skiddy hadn't even noticed. Still, it was the polite thing to beg pardon.

He went toward Butch Sundersohn at the far end of the table, scooping up Butch's booming sound waves with his ear, stepping through the table and the men seated around it with little murmurs of apology.
"The necessity of declaring no dividend at all on the preferred," he scooped up Butch's sound waves hanging motionless in the air, "in consideration of the serious tax outlook and the fact that profits have been much below preliminary estimates. To insure no unfair advantage among ourselves, we will wait to make our announcement till after the market's close. I think we are agreed. However, I rather imagine that most of us have had some forewarning and have already succeeded in disposing, at the recent not unfavorable market-"

T'HEY were not going to declare the huge thirty-dollar dividend on the preferred, or any dividend at all. They were going to pass it again. They had known all along that they were going to pass it. They had just spread the rumor of the big dividend so that they would have a market among the little specu-lators-speculators like himself-to unload their stock.

Noel Gouf pushed his face right up through the ring of cigar smoke which stood motionless in front of Butch Sundersohn's mouth, but that was the last word out. Butch had paused to blow his cigar ring before resuming.
"Butch!" Noel Gouf said. "For Pete's sake, Butch, aren't you really going to declare it?"

He was panic-stricken. The stock would drop thirty points. He would lose
ore thousand dollars, two thousand more than he had. He would go to jail for life, and Jessie would starve. He clutched Butch Sundersohn's lapel, trying to shake Butch's large, impassive frame.
"Butch!" he cried. "This is Brains Gouf, Butch. You remember me. The little guy who was in your high school class at Stratton thirty-three years ago. The one who always got the A's. I'm here in the fourth dimension, Butch. Listen to me! I've sunk everything. I've gone overboard. I got the tip straight from Skiddy Merton's own head office that the dividend would surely be declared, and I might make two thousand dollars! Please do something about it, Butch!"

He was almost crying. Butch Sundersohn remained stolid and impassive, with shrewd, cold-wrinkled eyes looking beyond him, with the cigar ring unbrokon in front of his round mouth. He did not move to Noel Gouf's frantic shaking. His face was unchanged.
"For gosh sake," thought the little
man, releasing him. "This isn't any time to him at all, of course. I'm not even here. Any more than a man peering over the walls of a two-dimension house would be there to a two-dimension person. It's hard to keep it straight."

He got out his handkerchief and wiped his forehead. He poured himself a glass of water from a carafe on the table and drank it.
"Well, so long," he said.
He straightened his shoulders and went out through the wall, stepping from the parapet of the Sundersohn building to the top of the Woolworth tower, and skating from there to the Empire State thirty blocks uptown, and rolling over on his back and floating from there to the tall-clustered spires of Rockefeller Center, a mile farther on.

He got out there on the eighty-seventh floor and walked sedately down the stairs, eighty-three flights of them, one step at a time. There was such a thing as carrying anything to excess in the
[Turn page]


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way of speed. He needed time to think.

## IV

IIITTLE Professor Gouf was tired and breathless, and his calf muscles were wobbling when he entered the offices of Skiddy Merton \& Co. down on the fourth floor. The clock in the board room said half past two. The huge green board with threefold wings had eight hundred big board stocks listed on it, with a few selected curbs, and wheat, oats, cotton, and lard. Opening price, low price, high price, and latest price for each stock.

In big leather lounge chairs, facing the board, the traders sat, watching the motionless translux tape. At the trading counter the customers' men stood at telephones with pencils poised, with changeless smiles upon their faces, in that changeless instant.

Noel Gouf's eyes went roving to Industrials. SI pfd. had opened at $773 / 8$, which was also its low for the day. Its last and high were the same, 791/2. Tomorrow morning it would open at about 50. Or maybe 40 or below. It was going to be a cold, freezing day in SI pfd. when the word got out that that hopedfor dividend had been passed by.

He went to the counter where his customer's man, old Grilby, looking like a decayed nineteen-hundred-style confidence man in bright striped shirt, bright checked suit, and diamond horseshoe stickpin stood. Grilby was smiling, with pencil poised over a black-printed order blank on the counter before him and a telephone at his ear.
"How is SI preferred acting, Mr. Grilby?" said the sound waves clustered around the telephone.
"Up. Up. All the boys seem to be crazy about it." The sound waves of Grilby's voice, rising up and down in the air like a roller-coaster, came joyously.

He was an optimist, Mr. Grilby, as a customer's man should be, and it was all a roller-coaster to him.

The black pads were the buy orders. In shaking anxiety, Noel Gouf reached for a red-printed pad on the counter and wrote on it :

## Sell to account of Noel Gouf 200 SI pfd. at market.

He pushed it beneath old Grilby's pencil and wiped his forehead. Selling at the market meant selling at whatever price happened to be bid. If the last price was 791/2, though, he ought to get 781/2, anyway.

Allowing a half a point for taxes and commissions in buying and selling, that would just about clear him, after having bought this morning at 78. If the market price were a half a point more, he might even make a hundred dollars. He had escaped losing thousands, anyway, and more than he had, and going to jail.

He wiped his forehead again and pulled back the red pad. Beneath the order he had written, he wrote further :

Sell 200 SI pfd. short at market.
He pushed it under old Grilby's pencil again. Wiping his sweating hands, he went tiptoeing out, afraid that some police officer's hand would reach out and pinch him before he had gained the door.

HE WALKED down the stairs and went out upon the street, still a little dazed. A cop's whistle made him jump. But it was only a track of sound waves which he had run into from the traffic policeman at the corner directing the motionless traffic with motionless hand upraised. He looked absently at his watch. It was still half past two.

His daughter Caroline had had a luncheon engagement at the Pigeon Club today, he remembered, with Allison Clouber, the powerful young labor politician to whom she was engaged. She and Clouber might still be lingering at lunch.

He turned down the side street on which the Pigeon Club was located, pâssing through the door and through the ad-
miral-uniformed doorman, who was just starting hurriedly out, with hand uplifted and whistle to his lips, to signal a passing cab.

Caroline and Clouber were sitting at a table in an alcove. An empty bottle that had held champagne showed that they had been celebrating. Caroline had her glass half lifted to her lips. Her eyes were bright. Her face was smiling. She was so much like what her mother had been at nineteen that the sight of her always tore old Noel Gouf's heart. He had been only a failure to Caroline, a despised cipher in her existence. It was no wonder she had chosen a man so different.

The luncheon bill was in front of Clouber on its silver platter. With one hand on his coat lapel, he had pulled out his pocketbook. Inadvertently, he had pulled out a letter from his inside breast pocket with it, too. His broad, pale face, powerful and big-jawed, was smiling a little quizzically as he glanced down at the letter behind his pulled-out lapel.
"We'll take the plane for St. Louis this afternoon, Caroline." The sound waves of his voice hung motionless in the air. "You'd like to meet my sister."

The letter which he had pulled out and was glancing down at was on pink paper with a blue deckle edge. The writing on it was in violet ink.

Noel Gouf had always had a strung prejudice against reading other persons' letters. But anything written on deckleedged paper with violet ink had nothing sacrosanct about it. He removed it gently but firmly from Clouber's big, square, well-manicured hand, without even a murmur of apology. He read:

[^1]Little Noel Gouf read the violet ink on the pink paper with a feeling of creeping horror. What it meant or what it suggested was something quite outside the range of his mathematics, and not less out of his own simple personal experiences in life. Still it gave him a feeling of some dark and brutalizing horror which threatened his lovely young Caroline, from this great, pale, wrinkled beast of a young man.

Perhaps if she read it herself, she would understand something in it. She was young, but she was wiser in so many ways than her father. Gently, plump little Professor Noel Gouf removed the half-lifted champagne glass from her hand and set it down on the tablecloth. He inserted the pink sheet, opened in her hand, before her smiling face.

He started out the door of the Pigeon Club and bumped into the doorman, still rushing out in motionless silence, with his hand lifted and his silent whistle at his lips. With a thought, Noel Gouf removed the whistle from the doorman's lips.

He went back to the table where Caroline and Clouber sat. Picking up a napkin, he wiped the whistle diligently. He dunked it in a water glass, rinsing it, and wiped it again. As a last measure, he immersed it in Caroline's champagne. Champagne had alcohol in it, he was sure, and alcohol is sterilizing.

Once having taken these precautions, he placed it between Caroline's smiling and half-parted lips. He spat into his palm and doubled up his right fist. He swung it straight at young Clouber's broad white nose and wrung his knuckles when the blow had landed. Young Clouber remained smiling ironically, still looking down at his half-extricated purse and the pink letter which was no longer in his hand.

RUBBING his bruised knuckles, little Professor Noel Gouf went marching out of the Pigeon Club again, going through the wall this time so as not to
go through the doorman.
The motionless sun was bright above. The day was at perfection. In this timeless space the weather could not change. No cloud could come. No drop of rain could fall. Little Professor Noel Gouf walked up Broadway, through a city of seven million people where no one walked or moved but him, enjoying the fine balmy afternoon June weather.

The sound waves of a loudspeaker horn above a radio shop, playing Deep in the Heart of Texas, were seined up by his ear. He looked at his watch, and it was just half past two.
"I could make it out there and back in no time," he muttered to himself, in the way that he had had, for thirty years, of muttering at his blackboard while he worked out his problems. "Texas is only two thousand miles away, after all. Yes, out there and back in no time. I've always wanted to see it."

He started out, sauntering up Broadway to the George Washington bridge six miles to the north, and sauntering across the bridge, enjoying the motionless sparkle of the motionless sunlight on the motionless river deep below. He paused to cut himself a walking stick when he had reached the Jersey side, and then started out for Texas.

It was difficult to explain. He himself found it somewhat difficult to explain, with all his mathematical knowledge. But by penetrating time and thereby reducing all the other dimensions of reality to chalk marks, it didn't really make any difference how far he went or at what speed he went.

It didn't make any difference whether he sauntered slowly along country roads, enjoying wild flowers and scooping his ear to catch the sound waves of singing birds, or whether he paused and meditated; or whether he skated gracefully above the tree tops in mile-long skimming strokes, or whether he tried a trudgeon crawl and went plowing through the air with a scissors kick, overtaking motionless hawks and stationary formations of combat planes and
frozen lightning bolts in his swift progress.

It didn't make any difference whether it was two hundred feet or two thousand miles he went, either. For the time that it took him to go anywhere, at whatever speed, was just exactly nothing.

So he started out for Texas, not going like a wild hawk or like a plane or like a bullet or a lightning bolt, for even the last takes a measurable eleven thousandths of a second to go two thousand miles. And it was taking him just exactly no time at all.

He started out walking, swinging the walking stick that he had cut, leisurely enjoying the scenery, on the ground or floating through the air when his legs got a little tired. At the end of precisely no time, at two-thirty Eastern War Time, one-thirty Central War Time, he was at Collins Field in Texas, where his son Tom was stationed as a flying instructor.

In just precisely no time he was there from the Pigeon Club. In precisely no time from the board room of Skiddy Merton \& Co., and in no time from the directors' room of Sundersohn Industries. And in no time from Jawbone MacGlurk's office and his own classroom in the Stratton High School in the pleasant little town of Stratton, on the sparkling river two thousand miles away.

He was out there in Texas in no time, a hundred feet above the ground, which was a bad patch of rocky ground. His hand was on the cockpit of a training plane which was poised motionless in the air with its nose down and its wings sideways, and its ailerons and flippers and rudder all twisted in what seemed to him, with his mathematical mind, somewhat peculiar and irrational positions.

He was holding on to the cockpit edge and looking at the wrenched, terrified face of a student pilot in the rear seat of the trainer. The student was clinging with both hands to the control stick hard against his belt in a stone grip like death, with motionless drops of saliva
epouting. from the edges of his wideopen mouth, and sound waves frozen in the motionless air about his mouth. They were discernible even in the great rocky corrugated sound waves of the plane's motor.
"I want to go home !" his sound waves screamed.

## V

FIRST LIEUTENANT TOM GOUF, in the front seat, was looking around, his hand gripping the dual stick in his cockpit and trying to force it forward from him. A twisted and considerably alarmed look was frozen on his lean, hard, brown face.
"Hello, Tom," said little Noel Gouf, apologetically. "I'm here in the fourth dimension. It was such a pleasant day that I thought I'd pop out and see you."

Tom made no reply to him, sat there with that motionless glare.
"I don't mean to butt in with my theories," said little Noel Gouf, apologetically, "but it seems to me that, speaking in terms of pure abstract mathematics, the position of line of flight of your plane in relation to the direct line of gravity forms an extremely acute angle-which, if continued, would cause your line $A B$ to meet the ground line CD almost perpendicularly and with considerable force.
"I know nothing about flying, of course. Still, the proper maintenance of the Kv curve is a mathematical formula.

I thought that perhaps you wouldn't mind if I pointed out to you the mathematics of the situation."

Tom's frozen face glared back. The professor edged up along the fuselage toward Tom's cockpit timidly. Tom had always hated for him to give any advice.
"Let go," Tom's sound waves came into his ear as he moved up toward him. "That stick! You crazy fool!"
"Goodness gracious," said little Professor Noel Gouf, rubbing his chin. "The young fellow is really quite crazy with fright, isn't he? And he had seized the controls and has swerved your plane into this most singular and mathematically absurd position. And the ground is extremely close. At a speed of approximately two hundred miles per hour, you will hit in approximately three hundred and seventeen thousandths of a second. With disastrous consequences, I presume, since the force of impact is in proportion to the square of the speed. Let me think a moment."

But there were no moments at all, of course, to think. He stood with his foot on the cockpit stirrup, rubbing his chin and analyzing all the mathematics of it, muttering to himself, while no moment passed, and then another.
"I have it," he said. "Just wait a moment. No moment, I mean."

He dropped down to the stony ground and looked around. He selected a smooth, oblong-shaped flint rock, after due reflection, of about two pounds in
[Turn page]

weight, which fitted nicely into his palm. .He was back beside Tom's plane again in no time.
"Pardon me," he said.
He put one hand upon the side of the head of the bug-eyed, screaming student. He struck a little tap with the stone just back of that petrified young man's ear.
"Dear me," he said, "I hope that's firm enough. Perhaps I had better repeat it, though, for good measure and a little more emphatically."

He gave a somewhat more vigorous and impressive tap, with nicely calculated force. The motionless student with mouth open continued his soundless screaming, still clutching the stick in that timeless instant. However, when time began again, he would be, Professor Gouf felt, sufficiently well taken care of. He tossed away the rock, which remained motionless in the air a few feet away.
"I really believe that should do it, Tom," he said. "Hope I haven't bothered you."

HE LOOKED at the watch on Tom's wrist, and it said half past one. He looked at his own watch, and it said half past two. He was walking down the shady side of Maple Street in Stratton toward the high school a block away, still looking at his watch. His legs felt quite tired. As near as he could remember, he had walked the whole way from Texas.

Along the shady sidewalk, he saw a tall, brisk, white-bearded figure striding toward him. A white beard parted in the middle and combed out in big puffs upon each side. A pair of steel-rimmed dark blue glasses, the color of eye-cup glass, over a pair of glittering, eagle eyes. An old and bony figure, walking with a little hop.

Little Professor Noel Gouf had not seen him for almost thirty years. But it could be none other than Dr. Alcibiades Hoogstetter, the head of the Mathematics Department of the Graduate School; the great savant.
"Bless my soul, if it isn't young Gouf," said old Hoogstetter, stopping and shaking hands with him heartily. "I was just thinking of you, Gouf. I am retiring, and none of the other young fellows seem to fit into my shoes. I have always expected you to take over after me. I inquired about you, but they told me you had left the Graduate School and were now in Stratton. It took me a little by surprise."
"I left Graduate School twenty-nine years ago, Doctor," said little Noel Gouf with a trembling mouth.
"Indeed?" the old man said. "Time flies. It's quite difficult to keep track of it. I had a birthday only the other day, or maybe it was a few years back. I thought that I was forty-two, but they told me I was eighty-one. Felt like a perfect fool. I thought that I had seen you around the Yard only yesterday, Gouf, or the day before, but you tell me it's been months. What have you been doing in mathematics in recent weeks?"

Little Noel Gouf drew himself up to his full height. He took a deep breath.
"I have discovered the fourth dimension, Doctor," he said quietly.

Old Hoogstetter nodded absently. "Good-good!" he said. "I was sure you would. You were right on the tail of it. Write me your mathematical computations, and I will check them over. A fascinating discovery. It's good, of course, for a doctorate. But that would hardly be required of you, Gouf. I have the full authority to name my successor and I have always had you in mind for it, as I told you only yesterday."
"Twenty-nine years ago, Doctor," said little Noel Gouf.
"Well, well, time flies. I had a birthday the other day, and they told me I was ninety-seven. I thought I was still thirteen. But think the matter over, Gouf. I'll write you a confirming letter, offering you the post. In fact, I'll have my secretary take a letter right now. What is your address, you say? Stratton, New Jersey? Where is that?"
"You're right there now, Doctor."
"Yes, I'll have her write to you at once. Well, good day to you, Gouf."
"Wait a minute!" said little Noel Gouf as old Dr. Alcibiades Hoogstetter lifted his hat courteously and turned away, going absently around a corner three steps distant. "Wait a minute, Doctor! How the dickens are you walking and talk-ing-"

He ran around the corner after the brisk old man.
"Hey, wait a minute!"
But there were no minutes to wait. In no time the brisk old figure of Dr. Hoogstetter had vanished.

LITTLE Noel Gouf turned back, considerably bewildered, and resumed his course down Maple Street. Really, any way he looked at it, it was most inexplicable. It was almost supernatural that Dr. Hoogstetter should talk to him that way and then abruptly vanish. He had never heard of such an extraordinary occurrence in his life.

He was almost at the high school steps when he saw the slight little figure of the Reverend Holmes, the new youthful pastor of the church which Jessie attended, walking toward him along the timeless and motionless street, with hands clasped behind him, head bowed in meditation. Would wonders never cease?
"Good afternoon, Parson," said little Noel Gouf.
"Oh, good afternoon, Professor. I was just thinking over my sermon."
"I have solved the riddle of the fourth dimension," said little Noel Gouf with shy pride. "But, of course, you have, too, haven't you, or you wouldn't be here?"

The young clergyman nodded absently. "Yes, yes," he said. "There's really nothing to it. Amusing little experiment at times, though, to get us out of ourselves."
"I just came from Texas," said Noel Gouf.
"I just came from China," said the young clergyman. "Norway. Abyssinia.

I am on my way down to East Peoria where my dear old aunt lives. Glad to have seen you, Professor."

He walked on down shady Maple Street, with his hands clasped behind him, still pacing and meditating. Slowly pacing, he walked into the air and went whisking away over the roofs of Stratton like a bullet.

Little Professor Noel Gouf wiped his forehead and turned into the high school's Gothic doors. He passed by Principal Jawbone MacGlurk's office door, and MacGlurk was still stooped over inside, still reaching for his nickel. Little Professor Noel Gouf stopped in again and delivered another mighty kick to the surface so prominently displayed, before proceeding on.

He went into his classroom in Senior Math. Nothing there had changed. The clock on the wall still stood at half past two. The spitball from Billy Camorra's rubber band still hung in the air three feet from where he had been standing at the blackboard. Muriel Morton still scratched her milk-white thigh. Niles Gowamley and Gloria Glick still had their noses and foreheads pressed together. Leaping Leander still sailed in motionless grace six inches above the chair.

Professor Noel Gouf paused. He got out a box of matches from his pocket. He struck one. It lit instantly, with a motionless flame, though it did not burn. He stooped and inserted it in Niles Gowamley's hip pocket. He struck another and inserted it in Leaping Leander's shoe, curled gracefully beneath him.

He struck a third and, after reflection, tucked it gently into the sole of Billy Camorra's shoe, with just the flame extruding. He flipped his thumbnail on Billy's nose again.

He went back up to the blackboard a little hurriedly. He would have to complete the diagram and set down the mathematical formula while it was still clear in his mind-the diagram and the mathematical formula of the fourth di-
mension. He bent down to pick up the piece of chalk that he had dropped. .

IN THE directors' room of Sundersohn Industries, Inc., big Butch Sundersohn laid down his burning cigar and blew away the smoke ring which drifted slowly six inches in front of his big face.
"Two-thirty now, even," he said. "We'll play fair with the public by holding the news till after the market closes. That's just a half hour more."

At the door, Skiddy Merton, turning the bolt, said, "Curse it, something went right through me. I don't know what."

He clicked the bolt and turned around from the door, resuming his seat at the table.
"A lot of little margin speculators are going to be hit," he said. "They've been hopping on SI preferred for a free ride. There's a little bug-eyed guy I used to know in college. Named something Gouf. Valedictorian of the class, first marshal of Phi Beta-one of these infant prodigies.
"He came to me last week, a seedy little fellow, a high school teacher, with a few thousand bucks that he wanted to put into a margin account and make fifty thousand out of. Somebody had given him a tip on Sundersohn preferred, and he asked me about it. I couldn't tell him anything, naturally. I just told him to watch it. I almost wish now I had told him to lay off."
"Why?". said Butch Sundersohn. "Sooner or later, a guy like that is bound to lose it. He doesn't know the inside."

He picked up his cigar again, sitting down in his seat at the head of the table.
"I went to high school with him myself," he said. "They used to call him Brains. Funny, I was thinking of him just this minute. Hadn't thought of him in thirty years, I guess. Teaching high school, is he? That's where they all end up. A theoretical guy like that, they never amount to much."
"The thought of him went right through me," said Skiddy Merton.

## VI

IN SKIDDY MERTON \& CO.'S board room, the half-past two bell bonged. Old Grilby, the customers' man, put down his phone. With his flashy horseshoe tie pin, his flashy striped shirt, and gambler's checked suit, he couldn't possibly be dishonest. Customers' men who wear blue serge suits and black ties and who look like undertakers are the ones to watch.

Old Grilby had just given a quote on SI preferred to a rich widow, one of his most successful traders, and she had given him an order to buy five hundred shares. He reached for the black pad to put the order down and saw the red "sell" pad on the counter right beneath his pencil.
"I must be getting old," he said to a conferee beside him at the counter. Here's one I overlooked."

An order to sell two hundred SI pfd. at the market and to sell two thousand additional short, for that seedy little new customer, Noel Gouf of Stratton. He initialed it and rushed out to the phone desk to have it transmitted down to the exchange floor for execution.

He glanced across at the moving translux and the big quote board with its snapping prices, when he had returned to his station. He read the morning translux figures:

SI preferred 79\% . . . Two hundred 6 One hundred 7 . . . Five hundred 80 Five hundred at $1 / 8$.
"Are they grabbing it!"' he enthused. "They're going wild. It will never stop. It'll hit ninety tomorrow morning when the big dividend is declared. Hey, that fool is going to lose twenty thousand dollars!"
"What fool?" said the adjacent customers' man.
"Fellow just started an account this week," said old Grilby. "Made a few trades, lost a thousand. He bought a couple of lots of SI preferred this morning on my recommendation and when
ihe has made a point or two, he loses his nerve. Sells out. Goes overboard on the other side and sells two thousand short. He's going to lose twenty thousand dollars."
"Is he good for it?"
"' 'He who sells what isn't his'n, must -pay for it or go to pris'n,'" Grilby hummed the old song softly. "Well, he must be good for it. Seedy little fellows like that generally have plenty tucked away in the sock. They save on clothes, that's how they make money."
"Sold two thousand short," said the other customers' man in some alarm, 'thinking it over. "I've got ten shares of SI puffed myself. Wonder if he had any inside information?"
"How could he have? He doesn't have any Street connections. He's just a mathematical shark at some little jerkwater high school out in Jersey."
"A mathematical shark. Two thousand is a big lump. If they don't declare a dividend, he's going to make about sixty dollars by tomorrow morning."
"Listen," said old Grilby uncertainly, "Sundersohn is going to pay that dividend. It's going up and up. And up. Nothing can stop it. Look at me. I know. Who made two million dollars in Twenty-nine by riding them up and up?"
"Show me two dollars now that you own," said the other customers' man unsympathetically. "I think I'll cash in on my little ten shares myself. Just for luck."

Old Grilby went out to the order desk to confirm the execution of Gouf's order. It had gone through, two hundred shares at a little less than eighty, two thousand shares short at a little more.
"He must have known something," he whispered to himself.

He watched the translux out in the board room. SI pfd. was hovering around 50 and a quarter. There were a lot of buyers, but there was also a lot of stock. Old Grilby picked up his phone and began calling his customers.
"SI preferred doesn't look so good," he said cautiously. "There's a rumor going around. A big short sale. It might be just as well to take your profits-"

The hunch had come to him from where all hunches and Wall Street tips come. From the fourth dimension. . . .

IN THE Pigeon Club, Caroline Gouf smiled at Allison Clouber across the table. He was so big and crude and strong. His very ugliness had a charm for her. He was some kind of an outlaw, quite likely, but there was a boldness and daring about him which fascinated her. All the girls she knew were crazy about him.

She lifted up her wine glass and smiled as the clock pointed to half past two. The waiter had set down the luncheon reckoning on the table before Al. He reached into his pocket for his billfold, with his quizzical smile.

Suddenly blood spurted from his nose, and his head jerked back. He glared at her.
"What did you do that for?" he snarled. "What are you doing with that blasted whistle in your mush? Where did you get that letter? Curse you, don't you try to-tie me up with Sally Lou!"

He was on his feet, with his blooddripping nose, glaring at her with terrible eyes. She thought she had a wine glass in her hand, but it was a pink letter with violet ink.
"Oh!"
She started to exhale her breath. A police blast came from her startled lips. Al struck at her with a swinging fist. He was leaping, a pistol coming from his pocket. Men were running at him. She arose with a frightened gasp, pulling the whistle from her lips, as Al went down beneath a flying horde.

A man kneeling on the floor looked up at her.
"You're from Judge Barnaby's office, aren't you?" he said. "We've been tailing him. We've been trying to tie him up with a traffic out in St. Louis in
which too many girls have disappeared, but he's always been too smart for us. Have you got hold of some letter of his, some written document? That was quick work, Miss, blowing that police whistle. And you are a brave girl to have gone out with him alone."
"I guess I have a guardian angel," she gasped. "I g-guess I have-"

She burst into tears. She went out crying, with some young man supporting her.
"I want to go home," she said. "I want to go home. . . ."

The rushing ground was whirling up a hundred feet below the whipping plane, down there in Texas. Pushing the frozen stick and the jammed rudder bar with all his strength, Tom Gouf yelled at the paralyzed, screaming fool behind him for his life.
"Let go that stick!"
The loco student's head dropped sideways. He had fainted. The stick was loose in Tom's gasp within the instant, and he pushed it down. Nose rushing at the ground, the ship straightened from its spin. He brought its nose back as its belly scraped along the rushing rocky ground and lifted it in a zoom.
"That was about the longest moment of my life!" he muttered, sweating. "I must have a guardian angel somewhere."

He still had a curious feeling, a curious eerie feeling, which would be with him all his life, that he had seen a rock, a smooth, two-pound flint rock, dropping aimlessly into empty space two feet away from his tail surfaces in that instant when the loco student had fainted, and he had got the controls again.

MAYBE it was a meteorite that had dropped down, for there was a contusion on the white-faced, retching student's head just back of his right ear, when they had returned to the field and landed. But it would seem that a meteorite, falling from outer space, would have hit harder than just to tap him. . . .

In his study at Cambridge, Massachusetts, old Dr. Alcibiades Hoogstetter
swung around in his big leather swived chair.
"I was meditating a moment," he said to his secretary, combing his white beard. "Will you take a letter to Professor Noel Gouf, Stratton High School, Stratton, New Jersey. . . . Dear Gouf -I am ready to retire and it has occurred to me that you might be interested. As I once mentioned to you, I have always had you in mind as my successor. How are you progressing in your theory of the fourth dimension? I always felt that you had something there. Sincerely yours, etc., etc."

In his office in the Stratton High School, Principal Jawbone MacGlurk pacing up and down and jingling coins as he dictated, stooped to pick up a nickel he had dropped. He fell flat upon his face and plowed forward across the floor on his chin.

He arose, rather lamely, bending over and feeling the seat of his pants, while Miss Peavy, his secretary, burst into screams of laughter, and threw her notebook over her shoulder, and threw her pencil at the ceiling.
"I've lived for this day," she said.
"You're fired," said MacGlurk.
She screamed with laughter. "You've got splinters in your chin. . . ."

Little Prọessor Noel Gouf stooped and picked up the chalk which he had dropped. He had drawn a three-dimension cube on the blackboard, ABCDEFGH, like the outline of a glass box seen in perspective. Then his chalk had slipped and had described a meaningless corkscrewing parabola, trailing off to nowhere as it fell from his grasp.
"Let us imagine," he said straightening up with the retrieved chalk in his grasp, "that this is a three-dimensional solid-""

Something thudded against the back of his head with a hurtling sting which brought the tears into his eyes. He turned around meekly to the classroom.

The clock ticked. Outside the open windows, bees and other insects hummed. Leaping Leander was just de-
scending into the aisle from vaulting over a chair. Muriel Morton was pulling down the hem of her skirt briefly and discreetly, Niles Gowamley, the big blond blitz football captain, and Gloria Glick separated their heads, bent together over the tick-tac-toe game. Just for an instant their foreheads brushed.

Billy Camorra, slumped grinning in his seat with a long, lanky, garterless leg draped over the other knee and a quivering rubber band fastened to his forked fingers, put his hand to his nose.
"Ouch!" he yelled.
Niles Gowamley reached to his hip pocket with a yelp. Leaping Leander Leverwaite, just landing on the floor, reached down to his shoe, yelped. Billy Camorra arose with a spring.
"Who did that?" he yelled.
"Ladies and gentlemen!" said little Professor Noel Gouf helplessly.

Niles Gowamley was on his feet, his fists swinging. Lanky Billy Camorra swung his arm at Leaping Leander's jaw. Leaping Leander, diving under, butted his head into Billy's stomach. The girls were standing on their seats, laughingan d screaming hysterically.
"Ladies and gentlemen," said little Professor Gouf, more helpless and almost crying. "Please pay attention! I was just on the verge of a most important thought. I almost had something. Let us for the moment imagine-"

But he had lost the thread of his thought. For an instant, only for a tiny, split, infinitesimal fraction of a second, he had thought that he had the answer to the fourth dimension.

THEY were all in an uproar and screaming. It made no difference whether he was there or not. Dodging and ducking between them, he made his way to the classroom door and out.

He passed by Principal MacGlurk's office. MacGlurk was bent over inside, feeling the seat of his pants.
"You've got splinters in your chin!" the happy voice of Miss Peavy rang out.
"You're fired!" yelled M a c Glurk.

Little Professor Noel Gouf stopped in on his way out. He swung back his foot and landed it solidly and with all the emphasis of his stock little frame upon MacGlurk's bent hind end. He had always wanted to do it, he realized. He wondered why he had never done it before. It almost seemed to him that he had.
"You're fired !" yelped MacGlurk as he went forward with great speed and hit the floor again.

But somehow little Noel Gouf didn't care any more. He didn't care or worry about anything. There was a great peace in him.

He went out upon the streets, at his little pace of twenty inches to the step. He bumped into young Reverend Holmes, the new clergyman of the church which Jessie attended.
"I was just on my way to see you, Professor," said the young clergyman, falling into step with him. "I was writing my sermon and all at once I thought of you. I thought we had a fascinating conversation, but I couldn't think about what."
"About the fourth dimension," said Noel Gouf. "I almost thought that I had solved it, for an infinitesimal split fraction of a second."
"Perhaps we all solve it, more than once in our lives," said the young parson gravely. "In times of stress or need, when we get out of ourselves. Hunches. Intuitions. Visions. Artists' creative inspirations. Things which come to us while we may be wandering in some fourth dimension. Only we never remember about it afterward. I might put that in my sermon. I thought-I don't know why-but I thought there might be something you would be able to tell me, something of that world. You have forgotten?"
"If I sold SI short today and it goes down tomorrow, the fourth dimension is real," said Noel Gouf. "That is all that I can tell you."

And he went home to call up his brokers and make sure that he had.


His despondency darkened to desperation

## The Corollary Effect

By COLIN G. JAMESON SR. and JR.

He was all in favor of the experiment-
until he actually tried it!

DR. MARK TERRIEN, of the Institute of Physical Studies, flicked on the voxbox with a trembling hand.
"Hoppy!" he shouted excitedly. "Hoppy, come up here! The last one just died and it was exactly the same story !"

The sub-acid voice of Professor Archimedes Hopkins said, "All right, boy, all right. Let us be calm."
"Calm, nothing!" Mark retorted. -"This could be the biggest thing in your young lifetime."
"All right, boy, all right," the Professor said. "It's the biggest thing in anybody's lifetime, and I'm just jealous."
"Stop being so infernally funny and come up here," Terrien said.
"I just dashed out the door," said Professor Hopkins.

In point of fact the old man merely snapped off his communicator, tugged irritably at the rumpled felt hat which he was rumored to wear even to bed, and continued his leisurely assault on the two thin lettuce sandwiches which always comprised the Hopkins lunch. Half an hour later he rose from his chair, stretched, strolled down the corridor and took the lift to the tenth level and Dr. Terrien's laboratory.

When he entered, his former pupil was impatiently stabbing out the third cigarette he had lit since their voxbox conversation.
"Dr. Terrien, I believe?" the professor said with deep formality.
"Good gosh, Hoppy, where have you been?" Mark demanded. "I began to think you'd taken a header down the elevator shaft."
"I did," Professor Hopkins said solemnly. "Luckily I happened upon the secret of eternal life as I fell."
"There's nothing to laugh at, Hoppy," Mark said. "This is important."
"Yes," the professor agreed. "Too important to go off half cocked about. Why is it that you young fellows always have to get into such a snit about everything? Young Dr. Powerbrain says, 'Look at the pretty bomb I just invented! Let's light the fuse and see what happens.' It's hurry, hurry, hurry! Find the half-answer today and get the whole headache tomorrow. Why does genius have to be so ignorant?"

Mark grinned. "If you're trying to
hurt my feelings and compliment me at the same time," he said, "you're not getting anywhere. Come in here."

Professor Hopkins followed him into the next room.
"Observe yon mouse," Terrien said, trying not to sound like the excited schoolboy which his old teacher seemed to consider him. He pointed to an enameled table under a flood lamp. Pinned to a dissection board was a small eviscerated corpse.
"Hmpf!" sniffed Professor Hopkins. "Don't try to tell me anything so hashed up can be immortal. If that mouse isn't dead, I'll eat him, and I just had lunch, too."
"Of course he's dead," Mark said. "But you don't know how old he was when he died. Physically, I mean. Not in actual years."
"Four hundred and three last Tuesday," the Professor said promptly.

Mark laughed hollowly. "I wish you could keep from being so dismally amus"ing," he said.
"Don't tell it isn't amusing," said Professor Hopkins, "if you claim that souped-up jukebox you call a 'CX irradiation chamber' actually works. If it does, how come yon mouse rendered up his tiny ghost in the space of weeks?"'
"I've told you I always accelerate the test animals' metabolism," Mark said. "It would be years before I was sure the machine worked if I didn't do that."
"Dear me!" Professor Hopkins said, glancing with exaggerated sympathy at the little furry form on the dissection board. "You don't mean to tell me you speeded this fellow up more than you slowed him down. Was that quite fair?"

MARK groaned inwardly. Good old Hoppy always had to have his fun before he got down to business. But this one time it would be nice if he could cut it short.
"An ordinary mouse," he went on doggedly, "lives about two years. This one was physically more than eight years old when he died. I've got a dog down
in the kennel that's more than 42 and frisky as a pup."
"So I'm going to live to be 280," Professor Hopkins said. "I doubt if the University pension committee is going to be overjoyed."
"I wish you'd be serious," Mark said. "You must realize that this is very solemn business, yet you treat me as if I were a sort of juvenile quack."

The old man's impish expression vanished. He pushed his hat back and rubbed his high-domed forehead thoughtfully with a fingertip.
"I don't want to belittle what you've got, Mark," he said soberly. "Matter of fact, I've been sort of whistling in the dark, because what you've got scares the wits out of me. I just hope and pray that you don't rush along into something bigger before you have more data. You've got a long way to go, boy, before you should light any fuses."
"A long way?" Mark echoed in surprise. "I don't see how you can say that, Hoppy. I think I'm about ready for the ultimate test."
"Hm," the Professor murmured. "'The ultimate test.' Brave words, those. You mean on people?"
"Yes, on people," Terrien said warmly. "And why not? I've proved the CX chamber on mice, rats, rabbits and dogs. I've held back till some specimens died and I could determine the age of their organs at the time of death. I've done that in fourteen cases now, and the results all jibe."
"I should think they'd have to jibe," Professor Hopkins said. "You accelerated each animal's metabolism in the same way, didn't you?'
"Yes, but the amount of acceleration I set up would have killed every specimen within a few days. The CX radiations made them live for weeks. Isn't that proof enough that I'm ready for people?"
"I'll admit everything," Professor Hopkins said softly, "with one exception. You're dealing with acceleration and deceleration. Whenever I hear
those words, no matter in what conneotion, I think of corollary effects."
"What do you mean, Hoppy?"
"Corollary effects. Effects additional to the principal result. Whenever you play around with time relationships, even theoretically, you tend to create paradoxes. And the best way to escape a paradox is by an unanticipated corollary effect."
"Such as?" Mark said, trying not to sound impatient. He was anxious to get on with "the ultimate test." How long would the old man continue with his futile arguments?
"Well, suppose you invent a time travel gadget," the Professor was saying. "This gadget is a wondrous thing, thoroughly automatic and dependable. You load it up with mice and rats and rabbits and dogs and ship it off to the fiftieth century. Half an hour later your menagerie is back all safe and sound, except for such mayhem as they may have committed on each other. So you figure the gadget is checked out for human passengers, and you allow your assistant to volunteer to take the trip. Whish, he's in the fiftieth century. But when you try to bring him back, what happens? His return, unlike that of the animals, will create a paradox because his knowledge of the future may enable him to control it to an extent. Consequently, an unexpected corollary effect sets in. Either he returns with no memory of what he has seen, or he is unable to come back at all."
"All very true," Mark admitted wearily. "But, Hoppy, can't you see that it has no bearing whatsoever on the CX chamber? There's no chance of creating paradox when you extend the life span -not even as much as in travel to the future, which you say doesn't generate paradox at all."
"I'm not so sure," Professor Hopkins said slowly. "At all events I'd advise you to look out for corollary effects. There wasn't any way you could ask those mice and rats and rabbits and dogs what their experience was when you put
them in the chamber."
"They seemed cheerful about it," Mark said. "Maybe a little surprised."
"I hope your first human victim doesn't get surprised," the Professor said. "Who is he?"
"Myself," Dr. Terrien said.

CHARACTERISTICALLY Mark Terrien had no fear of the coming experiment. As a scientist, he had faith in the scientific method, and he had demonstrated to his own satisfaction, if not to Hoppy's, that the CX irradiation chamber would extend life without harm to the subject.

Nevertheless he felt uneasy at the thought of telling his wife Mary that 'two weeks from today, more or less, when I finish building a bigger chamber, I'm going to fix it so I'll live longer than anybody since Moses." For some reason Mary, like Professor Hopkins, had an almost superstitious feeling about Project CX.

But must he tell Mary? Perhaps the out was a cowardly one, but it had the virtue of being harmless and simple. No, he would say nothing to Mary till afterward.

When he got home that night, he kissed Penny, aged 18 months, who was in her pen on the lawn enjoying the late afternoon June sunshine, and answered Mary's query about his day with a noncommittal "oh-the-usual-thing."

One of the factors contributing to man's love of woman is her uncanny ability to surprise him. Mary scanned Mark's face and said, "I suppose you're about ready to stick a man in that thing, and I suppose I don't get any prize if I name the man."

Mark started, then shrugged resignedly. "No, you don't get any prize," he said.

Mary took Penny out of his arms. "I don't know why you want to live forever," she said. "Probably the good Lord will just compensate by spreading the fun that much thinner."
"You know the reason," Mark said.
"Yes, I know the reason," she said. "It's the urge, the human urge to know. People wouldn't be people if they didn't have it. They'd still be in the trees. But I don't have to like it, do I?"

Mark thought she had never looked prettier. For a fleeting instant he wondered if beauty, too, might be thinned, diluted, by longer life. He tried to banish the thought. But it would not go till Penny was back in her pen and Mary was in his arms.
"You don't have to squash me," she said, smiling up at him. "You're not leaving me forever-are you ?"

THE day of the experiment Professor Hopkins met Mark at the door of the Terrien lab.
"I didn't sleep last night," the old man said, tugging nervously at his floppy hat. "And there's another paradox for you. If you like someone, any danger he faces is greater by the amount of the liking."
"Thanks, Hoppy," Mark said. "I appreciate that sentiment."
"And there's something else," the Professor said.

Mark smiled wryly. "The bitter under the sugar," he said. "I suppose you're going to tell me that the corollary effect will be to return me to the womb so that I can live longer."
"No," the Professor said. "There will be no joking today. I merely want to say one more thing about metabolic acceleration."
"Come inside," Mark said. "But don't think you're going to change my mind."
"A mind that can't change," the old man rejoined, "has ceased to be a mind."

They entered the lab.
"How do you know," Professor Hopkins said, "that your irradiation chamber will work without the opposing and possibly catalytic effect of metabolic acceleration? Don't you think it would be wise to allow some of your specimens to live out their normal lives without interfering with their metabolism? Then you'd know the chamber as such has an extension effect."

Mark smiled. "I somehow forgot to tell you, Hoppy," he said, "that I have two dozen Lichera fruit flies which are now six weeks old. I haven't accelerated their metabolism, and as you know Licheras ordinarily live only a week or ten days."

The Professor drew a long breath. "Never let it be said," he sighed, "that I haven't tried everything." He sank into a chair and pulled his hat over his eyes. "But you aren't a fruit fly, Mark," he added, "though I must say your thinking is uncommonly fruit-flyish these days. Think of that lovely wife of yours. Think of your baby girl. Think of-"
"Think of what a long and happy life Mary and I will have together," Mark broke in, "after I finish the test and use the machine on her. Think of how long you and I will have to work on a thousand other things. Think of the potentialities of the human mind if it doesn't have to go back to scratch and start over every seventy years, if instead it is allowed to amass knowledge and imagination and techniques for another two centuries or so."
"Count me out, boy," the old man said. When you get to be my age, you aren't as crazy about life as all that. But may I stick around and pick up your pieces?"

Mark laughed. "I insist on it," he said. "I suppose you've brought along your patent corollary effect inhibitor?"

HE LED the way to the inner room. The new and larger CX irradiation chamber occupied the whole of a small closet which had previously contained shelves of chemical supplies. The inside of the closet was now lined with a bluish metal alloy, to which an inner envelope of silver mesh was fused at various nodal points. Thick power lines led from the wall on either side of the door to a red, transformer-like box about three feet high, with dials and control switches on top.

Mark indicated the box. "First you close this main switch," he said. "When
the needle hits 140 and the green fluld which will rise in this tube begins to fluoresce, you throw the smaller switch. I have to give myself eleven minutes, instead of the four the dogs got, and at the proper moment an alarm buzzer will go off. When you hear it, you throw out the main switch and open the door. It's as simple as that."
"I hope it is," the Professor said. "Look, Mark, why don't you try it on me first? If it's as foolproof as you seem to think it is, why should you object to letting me have the first crack?"
"You don't want to live forever, remember ?" Mark said with a grin. "Come on. Let's go."

He stepped into the closet.
"Hadn't you better give me any metal you have on you ?" the old man said in a tight voice. Mark recognized it as an attempt to delay the experiment another minute or two in the desperate hope that something-perhaps an interruptionwould force a postponement. He had never realized the strength of Hoppy's affection for him, and it made him proud and a little sad.
"You're wearing clothes, too, and the animals weren't," the Professor said.
"Hoppy, you don't seem to think I've got a brain in my head," Mark said. "The last mouse was wearing full dress over a complete suit of chain mail."
"Well, I just thought-_"
"Come on, Professor. Shut the door. I want time to test a small irradiated slice of myself before we go out and have three martinis before lunch."
"All right, boy, all right," the old man said. There were tears in his eyes as he took Mark's hand and wrung it. Mark was relieved when the door finally swung shut, and he was alone in the darkness, facing an unknown of which he was not in the least afraid.

WHEN Mark Terrien again became fully aware of his surroundings, he found that he was walking along Farrell Street under the well-known elms. The sun was low behind the tower of the

American Building, the town's only skyscraper. At least six hours must have passed since the experiment, hours of which he had no faint memory.

Well, as soon as he got home he would call Hoppy and find out how things had gone and how hè had acted during the hours he could not recall. Presumably he and the Prefesor had had lunch, as planned, because he wasn't hungry.

Mark was eager to get on with the tests on samples of his own tissue, but unfortunately these would have to wait for the morrow. The delay was hard to take, though there was no reason to doubt the results. Mark was serene in his certainty that his few minutes in the irradiation chamber had made the expected changes in the character of his body cells, changes which should be easy to identify because of their similarity to those observed in the test animals.

As he turned in at the gate of the house which he and Mary had inherited from her father, he was sharply annoyed to note that since morning someone had pulled up and made off with every shrub of the barberry hedge which he had set out on either side of the walk. Such vandalism went too far, he decided. He would bring it to the attention of the police at the first opportunity.

He forgot all about the hedge, however, in the shock of recognizing the little girl who was playing a species of single-handed croquet on the lawn, not using the wickets. Any child who resembled Mary so much must be Penny, yet Penny had been only eighteen months old that morning! This little girl was at least seven years old.

Could this be one of Hoppy's corollary effects? Or had the irradiation chamber somehow malfunctioned, with the result that it had aged Mark six years instead of quadrupling the life of his tissues?

Clearly the tests could not wait till tomorrow.

His astonished stare had embarrassed Penny. She was blushing and twisting the croquet mallet in her hands. It seemed strange that she did not recog-
nize her own father, yet how could she? In only a few moments six years had gone by. Everything had changed. The barberry hedge was gone. The color of the house, Mark noticed now, was lightgray instead of the white he had painted it during his and Mary's stay-at-home honeymoon. Even the style of clothes worn by little girls had altered radically. And the time of year was early fall, instead of June; the leaves were turning.

How did you greet a daughter who didn't know you? Maybe it would be wise to get a formal introduction from her mother, your wife.
"Hello, Penny," Mark said-casually, he hoped. "Is your mother around?"
"No," said the little girl. "My mother is dead."

The blow so stunned him that he could not feel anything. As if in a dream he heard the child add, "And my name's not Penny."
"Not-Penny?" Mark heard himself say. "What-what is your name?"
"My name is Mary Lord," she said. "What's yours?"
"Mark Terrien," he said automatically. His brain was unable to accept what it had just taken in. This child Mary Lord, his Mary Lord? Why, that would mean he had been projected backward in time at least twenty years! That would account for the missing barberry bushes, the odd clothes the child wore.

BUT how could such a thing have come about? If one of the effects of the CX irradiation chamber was to alter the subject's environment in this manner, it would mean that the mouse or rabbit or man would have to disappear from his normal environment. Certainly the test mice and rabbits did nothing of the kind, so why had he?

How about Hoppy's analogy, when he was discussing corollary effects? Had he not pointed out that objects which would not create a time paradox, like test animals, might readily return from the future, while a man could not? Per. haps there was some parallel here.

No, there couldn't be, because the analogy had been proved false by Mark's own experience. In a sense he had returned from the future and was now in a position to influence it.

A man whom he recognized as a youngish edition of Mary's father came out onto the porch and stared at Mark.
"Are you looking for somebody, Mister?" Mr. Lord demanded. Good Lord! Mark thought. He thinks I'm annoying this child-my wife!

An almost irresistible urge to laugh seized him. What would the proper retort be? Something like, No, Mr. Lord, I'm not looking for anyone. But do you mind if I hang around for fifteen years or so till your little girl grows up enough to marry me again?
"I-I wonder if I could use your telephone," Mark finally managed.

With ill-concealed distaste, Mary's father asked him in. The furnishings in the house were as Mark remembered them when he first began seeing Mary, but so new, so very new.

There was no Archimedes Hopkins in the phone book. Of course not! Hoppy hadn't come to the University yet. In a sudden fever of curiosity, Mark called his own parents' home. He dreaded to hear his mother, so long dead, answer the phone, but an unfamiliar voice, perhaps that of a cleaning woman, came over the wire.

On impulse he asked for himself.
"Mark went out on an errand," the voice said. "You can probably find him at Harper's Drug Store."

Mark had not the stomach to meet his younger self face to face. It was enough and too much to know that somehow, in his effort to alter the forces of life, he had duplicated himself. To be fair to the boy he had been, he must not interfere, must not saddle the child with the effects of a time paradox. He must get away, out of this town, out of this state. He must work his way up to a position similar to that he had held in his previous existence and then try to build a machine which would undo what he had
done.
All very well to say, of course. Anything like that would take many years. Even if Mark was finally successful, which was unlikely, Mary might be an old woman before he returned to her.
"Good-bye, Mary," he said to the little girl as he headed for the gate. "I know you won't understand, or remember, but if only you'd drag your future husband out of his laboratory in time!"

The child glanced fearfully at his strained features and then at her father, who was overseeing Mark's departure from the porch.
"Leave her alone, can't you?" Mr. Lord cried angrily. "On your way, Mister, and don't come back!"

GET out of town, sure! With what? Mark had only three dollars in his wallet. He would have to get a job right here, and how did you get a job as a physicist or as anything else when you didn't have a reference or even a name. when legally-yes, and morally-you didn't even exist?

In time-travel stories the traveler sometimes made a good thing out of his predicament by foretelling the future, forecasting the stock market and the like. But who was going to believe a nameless wanderer who came to the door and said, "General Electric stock will hit 70 on November such-and-such 1952, ten-dollars-please." It would be an eminently successful way to get yourself removed from circulation.

In Mark's mind the time it was going to take before he would even be in a position to try to save himself grew and grew until it seemed endless. There was, in fact, no hope.

His despondency darkened to desperation. What an idiot he had been to tamper with the flow of natural forces. Perhaps, he thought as he paused in the middle of the Third Street bridge, there was only one way to readjust matters, at least partially. If you couldn't immediately remove the surplus Mark Terrien from this place, you could certainly
eliminate him from this time and a fortiori from this place. You could commit suicide. Why shouldn't you, if you would never see your wife, or your daughter, or your world again?
But not here. Not in this river, because you might be rescued. If you were rescued, you would be even worse off than you were now, because your lack of knowledge of this time and your inability to account for yourself or even name yourself would undoubtedly cost you your freedom.
No. The suicide must be surer than this river could make it. There were trains to jump under-messy, perhaps, but sure, very sure. Extra sure at night.

It seemed to take hours for the sun to go down, and Mark ascribed the lag in the passage of time to his fear that his resolution might fail him before he had done what he planned to do. At length, however, it was dark. He was standing on the platform of the Maywood suburban station where, as a boy, he had watched the expresses hurtle through without stopping. There was one coming now; you could see the headlight. Mark stepped to the edge of the platform, the image of Mary before his eyes. . . .

THE door of the irradiation chamber swung open and a dazed Mark Terrien fell forward into the waiting arms of Professor Hopkins.
"What-why-" Mark spluttered, unable to comprehend exactly what had happened to him.
"All right, boy, all right," said the Professor, easing him into a chair. "It's the biggest thing in years, but let us be calm."
"How did you do it, Hoppy?" he asked when his nerves steadied.
"After demonstrating a great deal of senile stupidity," the Professor said with a grimace, "I did the obvious thing and reversed the fields."
"You didn't do it any too soon, either," Mark said. "I was about to jump under a train."

His eye fell on a package which lay on the dissection table. A piece of gummed tape on its side read "Harper's Drug Store."
"Where did that come from, Hoppy?"
"Hm," murmured Professor Hopkins. "Our young friend must have left it."
"Our young friend! You mean-?"
"Yes, and he didn't like it here any more than you liked it there. He even cried. Said he was going to be late for supper."
"Then he wasn't in the other time when I was!" Mark exclaimed. "I was afraid I'd meet him and mess up my own future, so to speak."
"You two belonged in parallel time continua," the Professor said. "You couldn't tell that with the mice and rabbits and things because they couldn't talk any more than they could have if they'd returned from the future in a time travel gadget."
"But they were adults," Mark said. "My alternate was a boy."

The Professor shrugged. "You gave yourself a bigger dose. Maybe it was too big."
"Maybe," Mark admitted. "But how about the longer life span of the alternates?"
"You must have noticed that time runs slower in that other world," Professor Hopkins said.
"Well, it did take a long time for it to get dark, but I thought-"
"Probably about four times as long as usual?" the Professor prompted.
"Well, yes."
"Then a year over there would be four years here. Your junior self would have lived to 280 , instead of the Biblical 70, if I'd let him stay."
"I'm glad you didn't," Mark said thankfully.
"So am I," smiled the old man, tugging at his battered hat. "But do you understand now about unexpected corollary effects?"
"Yes, Hoppy," Mark said. "But did you have to go to such lengths to prove your point?"


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The stars were on the blink. And it took an astronomy prof to show why the brightest neon sign looked

like a glimmering glowworm next to the greatest gimmick in the galaxy IN THE SKY


I

ROGER JEROME PHLUTTER, for whose absurd surname I offer no defense other than that it is genuine, was, at the time of the events of this story, a hard-working clerk in the office of the Cole Observatory.

He was a young man of no particular brilliance, although he performed his daily tasks assiduously and efficiently, studied the calculus at home for one hour
every evening, and hoped some day to become a chief astronomer of some important observatory.

Nevertheless, our narration of the events of late March in the year 1999 must begin with Roger Phlutter for the good and sufficient reason that he, of all men on earth, was the first observer of the stellar aberration.

Meet Roger Phlutter.

Tall, rather pale from spending too much time indoors, thickish, shellrimmed glasses, dark hair close-cropped in the style of the nineteen nineties, dressed neither particularly well nor badly, smokes cigarettes rather excessively. . . .

At a quarter to five that afternoon, Roger was engaged in two simultaneous operations. One was examining, in a blink-microscope, a photographic plate taken late the previous night of a section in Gemini. The other was considering whether or not, on the three dollars remaining of his pay from last week, he dared phone Elsie and ask her to go somewhere with him.

Every normal young man has undoubtedly, at some time or other, shared with Roger Phlutter his second occupation, but not everyone has operated or understands the operation of a blinkmicroscope. So let us raise our eyes from Elsie to Gemini.

A blink-mike provides accommodation for two photographic plates taken of the same section of sky but at different times. These plates are carefully juxtaposed and the operator may alternately focus his vision, through the eyepiece, first upon one and then upon the other, by means of a shutter. If the plates are identical, the operation of the shutter reveals nothing, but if one of the dots on the second plate differs from the position it occupied on the first, it will call attention to itself by seeming to jump back and forth as the shutter is manipulated.

Roger manipulated the shutter, and one of the dots jumped. So did Roger. He tried it again, forgetting-as we have-all about Elsie for the moment, and the dot jumped again. It jumped almost a tenth of a second.

Roger straightened up and scratched his head. He lighted a cigarette, put it down on the ash tray, and looked into the blink-mike again. The dot jumped again when he used the shutter.

Harry Wesson, who worked the evening shift, had just come into the office
and was hanging up his topcoat.
"Hey, Harry!" Roger said. "There's something wrong with this blinking blinker."
"Yeah?" said Harry.
"Yeah. Pollux moved a tenth of a second."
"Yeah?" said Harry. "Well, that's about right for parallax. Thirty-two light years-parallax of Pollux is point one o one. Little over a tenth of a second, so if your comparison plate was taken about six months ago, when the earth was on the other side of her orbit, that's about right."
"But, Harry, the comparison plate was taken night before last. They're twenty-four hours apart."
"You're crazy."
"Look for yourself."
It wasn't quite five o'clock yet, but Harry Wesson magnanimously overlooked that and sat down in front of the blink-mike. He manipulated the shutter, and Pollux obligingly jumped.

T
HERE wasn't any doubt about its being Pollux, for it was far and away the brightest dot on the plate. Pollux is a star of 1.2 magnitude, one of the twelve brightest in the sky and by far the brightest in Gemini. And none of the faint stars around it had moved at all.
"Um," said Harry Wesson. He frowned and looked again. "One of those plates is misdated, that's all. I'll check into it first thing."
"Those plates aren't misdated," Roger said doggedly. "I dated them myself."
"That proves it," Harry told him. "Go on home. It's five o'clock. If Pollux moved a tenth of a second last night, I'll move it back for you."

So Roger left.
He felt uneasy somehow, as though he shouldn't have. He couldn't put his finger on just what worried him, but something did. He decided to walk home instead of taking the bus.

Pollux was a fixed star. It couldn't
have moved a tenth of a second in twen-ty-four hours.
"Let's see-thirty-two light years." Roger said to himself. "Tenth of a second. Why, that would be movement several times faster than the speed of light. Which is positively silly!"

Wasn't it?
He didn't feel much like studying or reading tonight. Was three dollars enough to take out Elsie?

The three balls of a pawn-shop loomed ahead, and Roger succumbed to temptation. He pawned his watch and then

## 

## a. Brown Study

THE origin of the phrase "pi in the sky" escapes us, but it has been most heavily used in recent years by the comrades of the extreme left. However, anything Marxian in Fred Brown's story is closer to the Marx Brothers than Karl of the same name. Fred Brown has been missed in science fiction since WHAT MAD UNIVERSE hit best-selling lists. Let's hope this small revival jogs his elbow.

## -The Editor

phoned Elsie. "Dinner and a show ?"
"Why certainly, Roger."
So until he took her home at one-thirty, he managed to forget astronomy. Nothing odd about that. It would have been strange if he had managed to remember it.

But his feeling of restlessness came back as soon as he left her. At first, he didn't remember why. He knew merely that he didn't feel quite like going home yet.

The corner tavern was still open, and he dropped in for a drink. He was having his second one when he remembered. He ordered a third.
"Hank," he said to the bartender.
"You know Pollux?"
"Pollux who?" asked Hank.
"Skip it," said Roger. He had another drink and thought it over. Yes, he'd made a mistake somewhere. Pollux couldn't have moved.

He went outside and started to walk home. He was almost there when it occurred to him to look up at Pollux. Not that, with the naked eye, he could detect a displacement of a tenth of a second, but he felt curious.

He looked up, allocated himself by the sickle of Leo, and then found GeminiCastor and Pollux were the only stars in Gemini visible, for it wasn't a particularly good night for seeing. They were there, all right, but he thought they looked a little farther apart than usual. Absurd, because that would be a matter of degrees, not minutes or seconds.

He stared at them for a while and then looked across at the Dipper. Then he stopped walking and stood there. He closed his eyes and opened them again, carefully.

The Dipper just didn't look right. It was distorted. There seemed to be more space between Alioth and Mizar, in the handle than between Mizar and Alkaid. Phecda and Merak, in the bottom of the Dipper, were closer together, making the angle between the bottom and the lip steeper. Quite a bit steeper.

Unbelievingly, he ran an imaginary line from the pointers, Merak and Dubhe, to the North Star. The line curved. It had to. If he ran it straight, it missed Polaris by maybe five degrees.

Breathing a bit hard, Roger took off his glasses and polished them very carefully with his handkerchief. He put them back on again, and the Dipper was still crooked.

So was Leo when he looked back to it. At any rate, Regulus wasn't where it should be by a degree or two.

A degree or two! At the distance of Regulus. Was it sixty-five light years? Something like that.

Then, in time to save his sanity, Roger
remembered that he'd been drinking. He went home without daring to look upward again. He went to bed but he couldn't sleep.

He didn't feel drunk. He grew more excited, wide awake.

ROGER wondered if he dared phone the observatory. Would he sound drunk over the phone? The devil with whether he sounded drunk or not, he finally decided. He went to the telephone in his pajamas.
"Sorry," said the operator.
"What d'ya mean, sorry?"
"I cannot give you that number," said the operator in dulcet tones. And then, "I am sorry. We do not have that information."

He got the chief operator and the information. Cole Observatory had been so deluged with calls from amateur astronomers that they had found it necessary to request the telephone company to discontinue all incoming calls save long distance ones from other observatories.
"Thanks," said Roger. "Will you get me a cab?"

It was an unusual request but the chief operator obliged and got him a cab.

He found the Cole Observatory in a state resembling a madhouse.

The following morning most newspapers carried the news. Most of them gave it two or three inches on an inside page but the facts were there.

The facts were that a number of stars, in general the brightest ones, within the past forty-eight hours had developed noticeable proper motions.
"This does not imply," quipped the New York Spotlight, "that their motions have been in any way improper in the past. 'Proper motion' to an astronomer means the movement of a star across the face of the sky with relation to other stars. Hitherto, a star named 'Barnard's Star' in the constellation Ophiuchus has exhibited the greatest proper motion of
any known star, moving at the rate of ten and a quarter seconds a year. 'Bernard's Star' is not visible to the naked eye."

Probably no astronomer on earth slept that day.

The observatories locked their doors, with their full staffs on the inside, and admitted no one, except occasional newspaper reporters who stayed a while and went away with puzzled faces, convinced at last that something strange was happening.

Blink-microscopes blinked, and so did astronomers. Coffee was consumed in prodigious quantities. Police riot squads were called to six United States observatories. Two of these calls were occasioned by attempts to break in on the part of frantic amateurs without. The other four were summoned to quell fistfights developing out of arguments within the observatories themselves. The office of Lick Observatory was a shambles, and James Truwell, Astronomer Royal of England, was sent to London Hospital with a mild concussion, the result of having a heavy photographic plate smashed over his head by an irate subordinate.

But these incidents were exceptions. The observatories, in general, were wellordered madhouses.

The center of attention in the more enterprising ones was the loud-speaker in which reports from the Eastern Hemisphere could be relayed to the inmates. Practically all observatories kept open wires to the night.side of earth, where the phenomena were still under scrutiny.

Astronomers under the night skies of Singapore, Shanghai, and Sydney did their observing, as it were, directly into the business end of a long-distance telephone hook-up.

Particularly of interest were reports from Sydney and Melbourne, whence came reports on the southern skies not visible-even at night-from Europe or the United States. The Southern Cross
was, by these reports, a cross no longer, Its Alpha and Beta being shifted northward. Alpha and Beta Centauri, Canopus and Achernar, all showed considerable proper motion-all, generally speaking, northward. Triangulum Australe and the Magellanic Clouds were undisturbed. Sigma Octanis, the weak pole star, had not moved.

Disturbance of the southern sky, then, was much less than in the northern one, in point of the number of stars displaced. However, relative proper motion of the stars which were disturbed was greater. While the general direction of movement of the few stars which did move was northward, their paths were not directly north, nor did they converge upon any exact point in space.

United States and European astronomers digested these facts and drank more coffee.

## II

E VENING papers, particularly in America, showed greater awareness that something indeed unusual was happening in the skies. Most of them moved the story to the front page-but not the banner headlines-giving it a half-column with a runover that was long or short,' depending upon the editor's luck in obtaining quotable statements from astronomers.

The statements, when obtained, were invariably statements of fact and not of opinion. The facts themselves, said these gentlemen, were sufficiently startling, and opinions would be premature. Wait and see. Whatever was happening was happening fast.
"How fast?" asked an editor.
"Faster than possible," was the reply.
Perhaps it is unfair to say that no editor procured expressions of opinion thus early. Charles Wangren, enterprising editor of The Chicago Blade, spent a small fortune in long-distance telephone calls. Out of possibly sixty attempts, he finally reached the chief as-
tronomers at five observatories. He asked each of them the same question.
"What, in your opinion, is a possible cause, any possible cause, of the stellar movements of the last night or two?"

He tabulated the results.
"I wish I knew."-Geo. F. Stubbs, Tripp Observatory, Long Island.
"Somebody or something is crazy, and I hope it's me-I mean I."-Henry Collister McAdams, Lloyd Observatory, Boston.
"What's happening is impossible. There can't be any cause."-Letton Tischauer Tinney, Burgoyne Observatory, Albuquerque.
"I'm looking for an expert on astrology. Know one?"-Patrick R. Whitaker, Lucas Observatory, Vermont.
"It's all wacky!"--Giles Mahew Frazier, Grant Observatory, Richmond.

Sadly studying this tabulation, which had cost him $\$ 187.35$, including tax, to obtain, Editor Wangren signed a voucher to cover the long distance calls and then dropped his tabulation into the wastebasket. He telephoned his regular space-rates writer on scientific subjects.
"Can you give me a series of articles -two-three thousand words each-on all this astronomical excitement?"
"Sure," said the writer. "But what excitement?" It transpired that he'd just got back from a fishing trip and had neither read a newspaper nor happened to look up at the sky. But he wrote the articles. He even got sex appeal into them through illustrations, by using ancient star-charts, showing the constellations in deshabille, by reproducing certain famous paintings, such as "The Origin of the Milky Way," and by using a photograph of a girl in a bathing suit sighting a hand telescope, presumably at one of the errant stars. Circulation of The Chicago Blade increased by 21.7 per cent.

It was five o'clock again in the office of the Cole Observatory, just twentyfour and a quarter hours after the beginning of all the commotion. Roger

Phlutter-yes, we're back to him again -woke up suddenly when a hand was placed on his shoulder.
"Go on home, Roger," said Mervin Armbruster, his boss, in a kindly tone.

Roger sat up suddenly.
"But, Mr. Armbruster," he said, "I'm sorry I fell asleep."
"Bosh," said Armbruster. "You can't stay here forever, none of us can. Go on home."

Roger Phlutter went home. But when he'd taken a bath, he felt more restless than sleepy. It was only six-fifteen. He phoned Elsie.
"I'm awfully sorry, Roger, but I have another date. What's going on, Roger? The stars, I mean."
"Gosh, Elsie-they're moving. Nobody knows."
"But I thought all the stars moved," Elsie protested. "The sun's a star, isn't it? Once you told me the sun was moving toward a point in Samson."
"Hercules."
"Hercules, then. Since you said all the stars were moving, what is everybody getting excited about?"
"This is different," said Roger. "Take Canopus. It's started moving at the rate of seven light years a day. It can't do that."
"Why not?"
"Because," said Roger patiently, "nothing can move faster than light." "But if it is moving that fast, then it can," said Elsie. "Or else maybe your telescope is wrong or something. Anyway, it's pretty far off, isn't it?"
"A hundred and sixty light years. So far away that we see it a hundred and sixty years ago."
"Then maybe it isn't moving at all," said Elsie. "I mean, maybe it quit moving a hundred and fifty years ago and you're getting all excited about something that doesn't matter any more because it's all over with. Still love me?"
"I sure do, honey. Can't you break that date?"
"'Fraid not, Roger. But I wish I
could."
He had to be content with that. He decided to walk uptown to eat.

IT WAS early evening, and too early to see stars overhead, although the clear blue sky was darkening. Whon the stars did come out tonight, Roger knew few of the constellations would be recognizable.

As he walked, he thought over Elsie's comments and decided that they were as intelligent as anything he'd heard at the Cole Observatory. In one way, they'd brought out one angle he'd never thought of before, and that made it more incomprehensible.

All these movements had started the same evening-yet they hadn't. Centauri must have started moving four years or so ago, and Rigel five hundred and forty years ago when Christopher Columbus was still in short pants, if any, and Vega must have started acting up the year he--Roger, not Vega-was born, twenty-six years ago. Each star out of the hundreds must have started on a date in exact relation to its distance from Earth. Exact relation, to a lightsecond, for cheek-ups of all the photographic plates taken night before last indicated that all the new stellar movements had started at four-ten 2. m., Greenwich time. What a mess!

Unless this meant that light, after all, had infinite velocity.

If it didn't have-and it is symptomatic of Roger's perplexity that he could postulate that incredible "if"-thenthen what? Things were just as puzzling as before.

Mostly he felt outraged that such events should be happening.

He went into a restaurant and sat down. A radio was blaring out the latest composition in dissarhythm, the new quarter-tone dance music in which chorded woodwinds provided background patterns for the mad melodies pounded on tuned tomtoms. Between each number and the next a frenetic
announcer extolled the virtues of a product.

Munching a sandwich, Roger listened appreciatively to the dissarhythm and managed not to hear the commercials. Most intelligent people of the nineties had developed a type of radio deafness which enabled them not to hear a human voice coming from a loudspeaker, although they could hear and enjoy the then infrequent intervals of music between announcements. In an age when advertising competition was so keen that there was scarcely a bare wall or an unbillboarded lot within miles of a population center, discriminating people could retain normal outlooks on life only by carefully-cultivated partial blindness and partial deafness which enabled them to ignore the bulk of that concerted assault upon their senses.

For that reason a good part of the newscast which followed the dissarhythm program went, as it were, into one of Roger's ears and out the other before it occurred to him that he was not listening to a panegyric on patent breakfast foods.

$\mathrm{H}^{\mathrm{B}}$E THOUGHT he recognized the voice, and after a sentence or two he was sure that it was that of Milton Hale, the ominent physicist whose new theory on the principle of indeterminacy had recently occasioned so much scientific controversy. Apparently, Dr. Hale was being interviewed by a radio announcer.
". . . a heavenly body, therefore, may have position or velocity, but it may not be said to have both at the same time, with relation to any given space-time frame."
"Dr. Hale, can you put that into common every-day language?" said the syrupy-smooth voice of the interviewer.
"That is common language, sir. Scientifically expressed, in terms of the Heisenberg contraction principle, then $n$ to the seventh power in parentheses, representing the pseudo-position of a Died-
rich quantum-integer in relation to the seventh coefficient of curvature of mass-"
"Thank you, Dr. Hale, but I fear you are just a bit over the heads of our listeners."

And your own head, thought Roger Phlutter.
"I am sure, Dr. Hale, that the question of greatest interest to our audience is whether these unprecedented stellar movements are real or illusory."
"Both. They are real with reference to the frame of space but not with reference to the frame of space-time."
"Can you clarify that, Doctor?"
"I believe I can. The difficulty is purely epistemological. In strict causality, the impact of the macroscopic-

The slithy toves did gyre and gimble in the wabe, thought Roger Phlutter.
"-upon the parallelism of the en-tropy-gradient."
"Bah!" said Roger aloud.
"Did you say something, sir?" asked the waitress. Roger noticed her for the first time. She was small and blonde and cuddly. Roger smiled at her.
"That depends upon the space-time frame from which one regards it," he said judicially. "The difficulty is epistemological."

To make up for that, he tipped her more than he should and left.

The world's most eminent physicist, he realized; knew less of what was happening than did the general public. The public knew that the fixed stars were moving or that they weren't. Obviously, Dr. Hale didn't even know that. Under a smoke-screen of qualifications, Hale had hinted that they were doing both.

Roger looked upward but only a few stars, faint in the early evening, were visible through the halation of the myriad neon and spiegel-light signs. Too early yet, he decided.

He had one drink at a nearby bar, but it didn't taste quite right to him so he didn't finish it. He hadn't realized what was wrong but he was punch-
drunk from lack of sleep. He merely knew that he wasn't sleepy any more and intended to keep on walking until he felt like going to bed. Anyone hitting him over the head with a well-padded blackjack would have been doing him a signal service, but no one took the trouble.

He kept on walking and, after a while, turned into the brilliantly lighted lobby of a cineplus theater. He bought a ticket and took his seat just in time to see the sticky end of one of the three feature pictures. Followed several advertisements which he managed to look at without seeing.
"We bring you next," said the screen, "a special visicast of the night sky of London, where it is now three o'clock in the morning."

The screen went black, with hundreds of tiny dots that were stars. Roger leaned forward to watch and listen care-fully-this would be a broadcast and visicast of facts, not of verbose nothingness.
"The arrow," said the screen, as an arrow appeared upon it, "is now pointing to Polaris, the pole star, which is now ten degrees from the celestial pole in the direction of Ursa Major. Ursa Major itself, the Big Dipper, is no longer recognizable as a dipper, but the arrow will now point to the stars that formerly composed it."

Roger breathlessly followed the arrow and the voice.
"Alkaid and Dubhe," said the voice. 'The fixed stars are no longer fixed, but -" the picture changed abruptly to a scene in a modern kitchen-"the qualities and excellences of Stellar's Stoves do not change. Foods cooked by the superinduced vibratory method taste as good as ever. Stellar Stoves are unexcelled."

L
EISURELY, Roger Phlutter stood up and made his way out into the aisle. He took his pen-knife from his pocket as he walked toward the screen. One
easy jump took him up onto the low stage. His slashes into the fabric wero not angry ones. They were careful, methodical cuts and intelligently designed to accomplish a maximum of damage with a minimum of expenditure of effort.

The damage was done, and thoroughly, by the time three strong ushers gathered him in. He offered no resistance either to them or to the police to whom they gave him. In night court, an hour later, he listened quietly to the charges against him.
"Guilty or not guilty ?" asked the presiding magistrate.
"Your Honor, that is purely a question of epistemology," said Roger earnestly. "The fixed stars move, but Corny Toastys, the world's greatest breakfast food, still represents the pseudo-position of a Diedrich quantum-integer in relation to the seventh coefficient of curvature!'

Ten minutes later, he was sleeping soundly. In a cell, it is true, but soundly nonetheless. Soundlessly, too, for the cell was padded. The police left him there because they realized he needed sleep. . . .

Among other minor tragedies of that night can be included the case of the schooner Ransagansett, off the coast of California. Well off the coast of California! A sudden squall had blown her miles off course, how many miles the skipper could only guess.

The Ransagansett was an American vessel, with a German crew, under Venezuelan registry, engaged in running booze from Ensenada, Baja California, up the coast to Canada, then in the throes of a prohibition experiment. The Ransagansett was an ancient craft with foul engines and an untrustworthy compass. During the two days of the storm, her outdated radio receiver-vintage of 1975-had gone haywire beyond the ability of Gross, the first mate, to repair.

But now only a mist remained of the storm, and the remaining shreds of wind
were blowing it away. Hans Gross, holding an ancient astrolabe, stood on the dock, waiting. About him was utter darkness, for the ship was running without lights to avoid the coastal patrols.
"She clearing, Mister Gross?" called the voice of the captain from below.
"Aye, sir. Idt iss glearing rabbidly."
In the cabin, Captain Randall went back to his game of blackjack with the second mate and the engineer. The crew-an elderly German named Weiss, with a wooden leg-was asleep abaft the scuttlebutt-wherever that may have been.

A half hour went by. An hour, and the captain was losing heavily to the engineer.
"Mister Gross!" he called out.
There wasn't any answer, and he called again and still obtained no response.
"Just a minute, mein fine feathered friends," he said to the second mate and engineer and went up the companionway to the deck.

Gross was standing there, staring upward with his mouth open. The mists were gone.
"Mister Gross," said Captain Randall.
The first mate didn't answer. The captain saw that his first mate was revolving slowly where he stood.
"Hans!" said Captain Randall. "What the devil's wrong with you?" Then he, too, looked up.

SUPERFICIALLY the sky looked perfectly normal. No angels flying around, no sound of airplane motors. The Dipper-Captain Randall turned around slowly, but more rapidly than Hans Gross. Where was the Big Dipper?

For that matter, where was anything? There wasn't a constellation anywhere that he could recognize. No sickle of Leo. No belt of Orion. No horns of Taurus.

Worse, there was a group of eight bright stars that ought to have been a constellation, for they were shaped
roughly like an octagon. Yet if such a constellation had ever existed, he'd never seen it, for he'd been around the Horn and Good Hope. Maybe at that-but no, there wasn't any Southern Cross!

Dazedly, Captain Randall walked to the companionway.
"Mister Weisskopf," he called. "Mister Helmstadt. Come on deck."

They came and looked. Nobody said anything for quite a while.
"Shut off the engines, Mister Helmstadt," said the captain. Helmstadt sa-luted-the first time he ever had-and went below.
"Captain, shall I vake opp Veiss?" asked Weisskopf.
"What for?"
"I don't know."
The captain considered. "Wake him up," he said.
"I think ve are on der blanet Mars," said Gross.

But the captain had thought of that and had rejected it.
"No," he said firmly. "From any planet in the solar system the constellations would look approximately the same."
"You mean ve are oudt of de cosmos?"
The throb of the engines suddenly ceased, and there was only the soft familiar lapping of the waves against the hull and the gentle familiar rocking of the boat.

Weisskopf returned with Weiss, and Helmstadt came on deck and saluted again.
"Vell, Captain?"
Captain Randall waved a hand to the after deck, piled high with cases of liquor under a canvas tarpaulin. "Break out the cargo," he ordered.

The blackjack game was not resumed. At dawn, under a sun they had never expected to see again-and, for that matter, certainly were not seeing at the mo-ment-the five unconscious men were moved from the ship to the Port of San Francisco Jail by members of the coast patrol. During the night the Ransagansett had drifted through the Golden Gate
and bumped gently into the dock of the Berkeley ferry.

In tow at the stern of the schooner was a big canvas tarpaulin. It was transfixed by a harpoon whose rope was firmly tied to the after-mast. Its presence there was never explained officially, although days later Captain Randall had vague recollection of having harpooned a sperm whale during the night. But the elderly able-bodied seaman named Weiss never did find out what happened to his wooden leg, which is perhaps just as well.

## III

MIILTON HALE, PH.D., eminent physicist, had finished broadcasting and the program was off the air.
"Thank you very much, Dr. Hale," said the radio announcer. The yellow light went on and stayed. The mike was dead. "Uh-your check will be waiting for you at the window. You-uh-know where."
"I know where," said the physicist. He was a rotund, jolly-looking little man. With his bushy white beard he resembled a pocket edition of Santa Claus. His eyes twinkled, and he smoked a short stubby pipe.

He left the sound-proof studio and walked briskly down the hall to the cashier's window. "Hello, sweetheart," he said to the girl on duty there. "I think you have two checks for Dr. Hale."
"You are Dr. Hale?"
"I sometimes wonder," said the little man. "But I carry identification that seems to prove it."
"Two checks?"
"Two checks. Both for the same broadcast, by special arrangement. By the way, there is an excellent revue at the Mabry Theater this evening."
"Is there? Yes, here are your checks, Dr. Hale. One for seventy-five and one for twenty-five. Is that correct?"
"Gratifyingly correct. Now about that revue at the Mabry?"
"If you wish, I'll call my husband and
ask him about it," said the girl.
"He's the doorman over there."

Dr. Hale sighed deeply, but his eyes still twinkled. "I think he'll agree," he said. "Here are the tickets, my dear, and you can take him. I find that I have work to do this evening."

The girl's eyes widened, but she took the tickets.

Dr. Hale went into the phone booth and called his home. His home, and Dr. Hale, were both run by his elder sister. "Agatha, I must remain at the office this evening," he said.
"Milton, you know that you can work just as well in your study here at home. I heard your broadcast, Milton. It was wonderful."
"It was sheer balderdash, AgaEha. Utter rot. What did I say?"
"Why, you said that-uh-that the stars were-I mean, you were not-"
"Exactly, Agatha. My idea was to avert panic on the part of the populace. If I'd told them the truth, they'd have worried. But by being smug and scientific, I let them get the idea that everything was-uh-under control. Do you know, Agatha, what I mean by the parallelism of an entropy-gradient?"
"Why-not exactly."
"Neither did I."
"Milton, tell me, have you been drinking?"
"Not y- No, I haven't. I really can't come home to work this evening, Agatha. I'm using my study at the university, because I must have access to the library there, for reference. And the starcharts."
"But, Milton, how about that money for your broadcast? You know it isn't safe for you to have money in your pocket, especially when you're feelinglike this."
"It isn't money, Agatha. It's a check, and I'll mail it to you before I go to the office. I won't cash it myself. How's that?"
"Well-if you must have access to the library, I suppose you must. Good-by, Milton."

DR. HALE went across the street to the drug store. There he bought a stamp and envelope and cashed the twenty-five-dollar check. The seventy-five-dollar one he put into the envelope and mailed.

Standing beside the mailbox, he glanced up at the early evening skyshuddered, and hastily lowered his eyes. He took the straightest possible line for the nearest double Scotch.
"Y'ain't been in for a long time, Dr. Hale," said Mike, the bartender.
"That I haven't, Mike. Pour me another."
"Sure. On the house, this time. We had your broadcast tuned in on the radio just now. It was swell."
'Yes."
"It sure was. I was kind of worried what was happening up there, with my son an aviator and all. But as long as you scientific guys know what it's all about, I guess it's all right. That was sure a good speech, Doc. But there's one question I'd like to ask you."
"I was afraid of that," said Dr. Hale.
"These stars. They're moving, going somewhere. But where are they going? I mean, like you said, if they are."
"There's no way of telling that, exactly, Mike."
"Aren't they moving in a straight line, each one of them?"

For just a moment the celebrated scientist hesitated.
"Well-yes and no, Mike. According to spectroscopic analysis, they're maintaining the same distance from us, each one of them. So they're really moving -if they're moving-in circles around us. But the circles are straight, as it were. I mean, it seems that we're in the center of those circles, so the stars that are moving aren't coming closer to us or receding."
"You could draw lines for those circles?"
"On a star-globe, yes. It's been done. They all seem to be heading for a certain area of the sky, but not for a given point. They don't intersect."
"What part of the sky they going to?"
"Approximately between Ursa Major and Leo, Mike. The ones farthest from there are moving fastest, the ones nearest are moving slower. But darn you, Mike, I came in here to forget about stars, not to talk about them. Give me another."
"In a minute, Doc. When they get there, are they going to stop or keep on going?"
"How the devil do I know, Mike? They started suddenly, all at the same time, and with full original velocity-I mean, they started out at the same speed they're going now-without warming up, so to speak-so I suppose they could stop as unexpectedly."

He stopped just as suddenly as the stars might. He stared at his reflection in the mirror back of the bar as though he'd never seen it before.
"What's the matter, Doc?"
"Mike!"
"Yes, Doc?"
"Mike, you're a genius."
"Me? You're kidding."
Dr. Hale groaned. "Mike, I'm going to have to go to the university to work this out. So I con have access to the library and the star-globe there. You're making an honest man out of me, Mike. Whatever kind of Scotch this is, wrap me up a bottle."
"It's Tartan Plaid. A quart?"
"A quart, and make it snáppy. I've got to see a man about a dog-star."
"Serious, Doc?"
Dr. Hale sighed audibly. "You brought that on yourself, Mike. Yes, the dogstar is Sirius. I wish I'd never come in here, Mike. My first night out in weeks, and you ruin it."

HE TOOK a cab to the university, let himself in, and turned on the lights in his private study and in the library. Then he took a good stiff slug of Tartan Plaid and went to work.

First, by telling the chief operator who he was and arguing a bit, he got a telephone connection with the chief as-
tronomer of Cole Observatory.

- "This is Hale, Armbruster," he said. "I've got an idea, but I want to check my facts before I start to work on it. Last information I had, there were four hundred and sixty-eight stars exhibiting new proper motion. Is that still correct?"
"Yes, Milton. The same ones are still at it, and no others."
"Good. I have a list, then. Has there been any change in speed of motion of any of them?"
"No. Impossible as it seems, it's constant. What is your idea?"
"I want to check my theory first. If it works out into anything, I'll call you." But he forgot to.

It was a long, painful job. First, he made a chart of the heavens in the area between Ursa Major and Leo. Across that chart he drew four hundred and sixty-eight lines representing the projected path of each of the aberrant stars. At the border of the chart, where each line entered, he made a notation of the apparent velocity of the star-not in light years per hour-but in degrees per hour, to the fifth decimal.

Then he did some reasoning.
"Postulate that the motion which began simultaneously will end simultaneously," he told himself. "Try a guess at the time. Let's try ten o'clock tomorrow evening."

He tried it and looked at the series of positions indicated upon the chart. No.

Try one o'clock in the morning. It looked almost like-sense!

Try midnight.
That did it. At any rate, it was close enough. The calculation could be only a few minutes off one way or the other, and there was no point now in working out the exact time. Now that he knew the incredible fact.

He took another drink and stared at the chart grimly.

A trip into the library gave Dr. Hale the further information he needed. The address!

Thus began the saga of Dr. Hale's journey. A useless journey, it is true, but one that should rank with the trip of the message to Garcia.

He started it with a drink. Then, knowing the combination, he rifled the safe in the office of the president of the university. The note he left in the safe was a masterpiece of brevity. It read :

> Taking money. Explain later.

Then he took another drink and put the bottle in his pocket. He went outside and hailed a taxicab. He got in.
"Where to, sir?" asked the cabby.
Dr. Hale gave an address.
"Fremont Street?" said the cabby. "Sorry, sir, but I don't know where that is."
"In Boston," said Dr. Hale. "I should have told you, in Boston."
"Boston? You mean Boston, Massachusetts? That's a long way from here."
"Therefore, we better start right away," said Dr. Hale reasonably. A brief financial discussion and the passing of money, borrowed from the university safe, set the driver's mind at rest, and they started.

It was a bitter cold night, for March, and the heater in the cab didn't work any too well. But the Tartan Plaid worked superlatively for both Dr. Hale and the cabby, and by the time they reached New Haven, they were singing old-time songs lustily.
"Off we go, into the wide, wild yonder . . ." their voices roared.

IT IS regrettably reported, but possibly untrue that, in Hartford, Dr. Hale leered out of the window at a young woman waiting for a late streetcar and asked her if she wanted to go to Boston. Apparently, however, she didn't, for at five o'clock in the morning, when the cab drew up in front of 614 Fremont Street, Boston, only Dr. Hale and the driver were in the cab.

Dr. Hale got out and looked at the house. It was a millionaire's mansion,
and it was surrounded by a high iron fence with barbed wire on top of it. The gate in the fence was locked, and there was no bell button to push.

But the house was only a stone's throw from the sidewalk, and Dr. Hale was not to be deterred. He threw a stone. Then another. Finally he succeeded in smashing a window.

After a brief interval, a man appeared in the window. A butler, Dr. Hale decided.
"I'm Dr. Milton Hale," he called out. "I want to see Rutherford R. Sniveley, right away. It's important."
"Mr. Sniveley is not at home, sir," said the butler. "And about that window-"
"The devil with the window," shouted Dr. Hale. "Where is Sniveley?"
"On a fishing trip."
"Where?"
"I have orders not to give that information."

Dr. Hale was just a little drunk, perhaps. "You'll give it, just the same," he roared. "By orders of the President of the United States!"

The butler laughed. "I don't see him." "You will," said Hale.
He got back in the cab. The driver had fallen asleep, but Hale shook him awake.
"The White House," said Dr. Hale.
"Huh?"
"The White House, in Washington," said Dr. Hale. "And hurry!" He pulled a hundred-dollar bill from his pocket. The cabby looked at it, and groaned. Then he put the bill into his pocket and started the cab.

A light snow was beginning to fall.
As the cab drove off, Rutherford R. Sniveley, grinning, stepped back from the window. Mr. Sniveley had no butler.

If Dr. Hale had been more familiar with the peculiarities of the eccentric Mr. Sniveley, he would have known Sniveley kept no servants in the place overnight but lived alone in the big house at 614 Fremont Street. Each morning at ten o'clock, a small army of servants descended upon the house,
did their work as rapidly as possible, and were required to depart before the witching hour of noon. Aside from these two hours of every day, Mr. Sniveley lived in solitary splendor. He had few, if any, social contacts.

A
SIDE from the few hours a day he spent administering his vast interests as one of the country's leading manufacturers, Mr. Sniveley's time was his own, and he spent practically all of it in his workshop, making gadgets.

Sniveley had an ashtray which would hand him a lighted cigar any time he spoke sharply to it, and a radio receiver so delicately adjusted that it would cut in automatically on Sniveley-sponsored programs and'shut off again when they were finished. He had a bathtub that provided a full orchestral accompaniment to his singing therein, and he had a machine which would read aloud to him from any book which he placed in its hopper.

His life may have been a lonely one, but it was not without such material comforts. Eccentric, yes, but Mr. Sniveley could afford to be eccentric with a net income of four million dollars a year. Not bad for a man who'd started life as the son of a shipping clerk.

Mr. Sniveley chuckled as he watched the taxi drive away, and then he went back to bed and to the sleep of the just.
"So somebody has figured things out nineteen hours ahead of time," he thought. "Well, a lot of good it will do them!"

There wasn't any law to punish him for what he'd done.

Bookstores did a land-office business that day in books on astronomy. The public, apathetic at first, was deeply interested now. Even ancient and musty volumes of Newton's Principia sold at premium prices.

The ether blared with comment upon the new wonder of the skies. Little of the comment was professional, or even intelligent, for most astronomers were asleep that day. They'd managed to
stay awake for the first forty-eight hours from the start of the phenomena, but the third day found them worn out mentally and physically and inclirred to let the stars take care of themselves while they-the astronomers, not the starscaught up on sleep.

Staggering offers from the telecast and broadcast studios enticed a few of them to attempt lectures, but their efforts were dreary things, better forgotten. Dr. Carver Blake, broadcasting from KNB, fell soundly asleep between a perigee and an apogee.

Physicists were also greatly in demand. The most eminent of them all, however, was sought in vain. The solitary clue to Dr. Milton Hale's disappearance, the brief note, "Taking money. Explain later, Hale," wasn't much of a help. His sister Agatha feared the worst.

For the first time in history, astronomical news made banner headlines in the newspapers.

## IV

$\mathbf{S}$
NOW had started early that morning along the northern Atlantic seaboard and now it was growing steadily worse. Just outside Waterbury, Connecticut, the driver of Dr. Hale's cab began to weaken.

It wasn't human, he thought, for a man to be expected to drive to Boston and then, without stopping, from Boston to Washington. Not even for a hundred dollars.

Not in a storm like this. Why, he could see only a dozen yards ahead through the driving snow, even when he could manage to keep his eyes open. His fare was slumbering soundly in the back seat. Maybe he could get away with stopping here along the road, $\mathrm{f} \subset \mathrm{r}$ an hour, to catch some sleep. Just an hour. His fare wouldn't ever know the difference. The guy must be loony, he thought, or why hadn't he taken a plane or a train?

Dr. Hale would have, of course, if he'd
thought of it. But he wasn't used to traveling and besides, there'd been the Tartan Plaid. A taxi had seemed the easiest way to get anywhere-no worrying about tickets and connections and stations. Money was no object, and the plaid condition of his mind had caused him to overlook the human factor involved in an extended journey by taxi.

When he awoke, almost frozen, in the parked taxi, that human factor dawned upon him. The driver was so sound asleep that no amount of shaking could arouse him. Dr. Hale's watch had stopped, so he had no idea where he was or what time it was.

Unfortunately, too, he didn't know how to drive a car. He took a quick drink to keep from freezing and then got out of the cab, and as he did so, a car stopped.

It was a policeman-what is more it was a policeman in a million.

Yelling over the roar of the storm, Hale hailed him.
"I'm Dr. Hale," he shouted. "We're lost, where am I?"
"Get in here before you freeze," ordered the policeman. "Do you mean Dr. Milton Hale, by any chance?"
"Yes."
"I've read all your books, Dr. Hale," said the policeman. "Physics is my hobby, and I've always wanted to meet you. I want to ask you about the revised value of the quantum."
"This is life or death," said Dr. Hale. "Can you take me to the nearest airport, quick ?"
"Of course, Dr. Hale."
"And look-there's a driver in that cab, and he'll freeze to death unless we send aid."
"I'll put him in the back seat of my car and then run the cab off the road. W.'e'll take care of details later."
"Hurry, please."
The obliging policeman hurried. He got in and started the car.
"About the revised quantum value, Dr. Hale," he began, then stopped talking.

DR. HALE was sound asleep. The policeman drove to Waterbury Airport, one of the largest in the world since the population shift from New York City in the 1960s and 70s had given it a central position. In front of the ticket office, he gently awakened Dr. Hale.
"This is the airport, sir," he said.
Even as he spoke, Dr. Hale was leaping out of the car and stumbling into the building, yelling, "Thanks," over his shoulder and nearly falling down in doing so.

The warm-up roaring of the motors of a superstratoliner out on the field lent wings to his heels as he dashed for the ticket window.
"What plane's that?" he yelled.
"Washington Special, due out in one minute. . But I don't think you can make it."

Dr. Hale slapped a hundred-dollar bill on the ledge. "Ticket," he gasped. "Keep change."

He grabbed the ticket and ran, getting into the plane just as the doors were being closed. Panting, he fell into a seat, the ticket still clutched in his hand. He was sound asleep before the hostess strapped him in for the blind take-off.

$\mathrm{A}^{\mathrm{N}}$N HOUR later, the hostess awakened him. The passengers were disembarking.

Dr. Hale rushed out of the plane and ran across the field to the airport building. A big clock told him that it was nine o'clock, and he felt elated as he ran for the door marked "Taxis." He got into the nearest one.
"White house," he told the driver. "How long'll it take?"
"Ten minutes."
Dr. Hale gave a sigh of relief and sank back against the cushions. He didn't go back to sleep this time. He was wide awake now. But he closed his eyes to think out the words he'd use in explaining matters. . . .
"Here you are, sir."
Dr. Hale gave the driver a bill and
hurried out of the cab and into the building. It didn't look as he had expected it to look. But there was a desk, and he ran up to it.
"I've got to see the President, quick. It's vital."

The' clerk frowned. "The President of what?"

Dr. Hale's eyes went wide. "The President of wh-say, what building is this? And what town?"

The clerk's frown deepened. "This is the White House Hotel," he said. "Seattle, Washington."

Dr. Hale fainted. He woke up in a hospital three hours later. It was then midnight, Pacific Time, which meant it was three o'clock in the morning on the Eastern seaboard. It had, in fact, been midnight already in Washington, D. C., and in Boston, when he had been leaving the Washington Special in Seattle.

Dr. Hale rushed to the window and shook his fists, both of them, at the sky. A futile gesture.

Back in the East, however, the storm had stopped by twilight, leaving a light mist in the air. The star-conscious public had thereupon deluged the weather bureaus with telephoned requests about the persistence of the mist.
"A breeze off the ocean is expected," they were told. "It is blowing now, in fact, and within an hour or two will have cleared off the light fog."

By eleven-fifteen the skies of Boston were clear.

Untold thousands braved the bitter cold and stood staring upward at the unfolding pageant of the no-longer-eternal stars. It almost looked as though—an incredible development had occurred.

And then, gradually, the murmur grew. By a quarter to twelve, the thing was certain, and the murmur hushed and then grew louder than ever, waxing toward midnight. Different people reacted differently, of course, as might be expected. There was laughter as well as indignation, cynical amusement as well as shocked horror. There was even admiration.

Soon, in certain parts of the city, a concerted movement on the part of those who knew an address on Fremont Street began to take place. Movement afoot and in cars and public vehicles, converging.

At five minutes of twelve, Rutherford R. Sniveley sat waiting within his house. He was denying himself the pleasure of looking until, at the last moment, the thing was complete.

It was going well. The gathering murmur of voices, mostly angry voices, outside his house told him that. He heard his name shouted.

JUST the same, he waited until the twelfth stroke of the clock before he stepped out upon the balcony. Much as he wanted to look upward, he forced himself to look down at the street first. The milling crowd was there and it was angry. But he had only contempt for the milling crowd.

Police cars were pulling up, too, and he recognized the mayor of Boston getting out of one of them, and the chief of police was with him. But so what? There wasn't any law covering this.

Then having denied himself the supreme pleasure long enough, he turned his eyes up to the silent sky, and there it was. The four hundred and sixtyeight brightest stars, spelling out:

## USE <br> SNIVELY'S <br> SOAP

For just a second did his satisfaction last. Then his face began to turn an apoplectic purple.
"My heavens!" said Mr. Sniveley. "It's spelled wrong!"

His face grew more purple still, and then, as a tree falls, he fell backward through the window.

An ambulance rushed the fallen magnate to the nearest hospital, but he was pronounced dead-of apoplexy-upon entrance.

But misspelled or not, the eternal
stars held their positions as of that midnight. The aberrant motion had stopped, and again the stars were fixed. Fixed to spell-SNIVELY'S SOAP.

Of the many explanations offered by all and sundry who professed some physical and astronomical knowledge, none was more lucid-or closer to the actual truth-than that put forth by Wendell Mehan, president emeritus of the New York Astronomical Society.
"Obviously, the phenomenon is a trick of refraction," said Dr. Mehan. "It is manifestly impossible for any force contrived by man to move a star. The stars, therefore, still occupy their old places in the firmament.
"I suggest that Sniveley must have contrived a method of refracting the light of the stars, somewhere in or just above the atmospheric layer of the earth, so that they appear to have changed their positions. This is done, probably, by radio waves or similar waves, sent on some fixed frequency from a set-or possibly a series of four hundred ánd sixty-eight sets-somewhere upon the surface of the earth. Although we do not understand just how it is done, it is no more unthinkable that light rays should be bent by a field of waves than by a prism or by gravitational force.
"Since Sniveley was not a great scientist, I imagine that his discovery was empiric rather than logical-an accidental find. It is quite possible that even the discovery of his projector will not enable present-day scientists to understand its secret, any more than an aboriginal savage could understand the operation of a simple radio receiver by taking one apart.
"My principal reason for this assertion is the fact that the refraction obviously is a fourth-dimensional phenomenon, or its effect would be purely local to one portion of the globe. Only in the fourth dimension could light be so refracted. . . ."

There was more but it is better to skip to his final paragraph :
"This effect cannot possibly be per-manent-more permanent, that is, than the wave-projector which causes it. Sooner or later, Sniveley's machine will be found and shut off or will break down or wear out of its own volition. Undoubtedly it includes vacuum tubes which will some day blow out, as do the tubes in our radios. . . ."

THE excetlence of Dr. Mehan's analysis was shown two months and eight days later, when the Boston Electric Co. shut off, for non-payment of bills, service to a house situated at 901 West Rogers Street, ten blocks from the Sniveley mansion. At the instant of the shut-off, excited reports from the night side of Earth brought the news that the stars had flashed back to their former positions instantaneously.

Investigation brought out that the description of one Elmer Smith, who had purchased that house six months before, corresponded with the description of Rutherford R. Sniveley, and undoubtedly Elmer Smith and Rutherford R. Sniveley were one and the same person.

In the attic was found a complicated network of four hundred and sixty-eight radio-type antennae, each antenna of different length and running in a different direction. The machine to which they were connected was not larger, strangely, than the average ham's radio
projector, nor did it draw appreciably more current, according to the electric company's record.

By special order of the President of the United States, the projector was destroyed without examination of its internal arrangement. Clamorous protests against this high-handed executive order arose from many sides. But inasmuch as the projector had already been broken up, the protests were to no avail.

Serious repercussions were, on the whole, amazingly few.

Persons in general appreciated the stars more but trusted them less.

Roger Phlutter got out of jail and married Elsie.

Dr. Milton Hale found he liked Seattle and stayed there. Two thousand miles away from his sister, Agatha, he found it possible for the first time to defy her openly. He enjoys life more but, it is feared, will write fewer books.

There is one fact remaining which is painful to consider, since it casts a deep reflection upon the basic intelligence of the human race. It is proof, though, that the president's executive order was justified, despite scientific protest.

That fact is as humiliating as it is enlightening. During the two months and eight days during which the Sniveley machine was in operation, sales of Sniveley Soap increased nine-hundredtwenty per cent.


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## By CLEVE CARTMILL

He'd already been in so
many jams that one more couldn't hurt-much!
© ERGEANT RION McBRIAR barked his order.
"Pull over to that pylon!"
The sergeant's voice was loud and harsh with the effort to hide his fear. Not fear of the pilot of that peculiar
looking craft but of Captain Kennedy. If McBriar alhowed the Peace Parade to be messed up, Kennedy would certainly send him back to the sticks. McBriar hoped no official eyes were on this incident.

The pilot turned his helmeted head, gave McBriar a penetrating look, and obeyed the pointing finger. He swung the blunt snout of his flyer toward the spidery pylon, picked up McBriar's thought impulses, and cursed himself as he stalled his ship beside the high, bright tower.

Norg, he thought, you have been stupid. This being is a petty official. You have broken a rule, carelessly, and may be exposed.

Norg considered striking McBriar dead, then discarded the thought. The inhabitants of this planet had no such weapon as his, and they must have no knowledge of it until too late. He waited, faintly amused at the fuming thoughts that swirled in McBriar's middle-aged head.
"Where did you learn to fly ?" McBriar demanded wrathfully. He brought his traffic car to the side of the long, dull craft and eyed the pilot with steady contempt. "You may fly that way in the country, cousin, but you're in the city now. Didn't you see the warning?"

Norg glanced at his panel instrument that broke these alien sounds down into thought patterns, picked up the anticipated reply from McBriar's thoughts, and made appropriate sounds of his own.
"I am sor-ry."
A tiny flicker of suspicion rippled across McBriar's thoughts, brought a calculating gleam to his gray eyes and a wrinkle to his brow.

He thought: funny talking guy. Funny looking, too. Never saw eyes like them. What's that helmet? Maybeoh, lord, maybe he's some big bug that's got a right here. But why didn't he tell me?
"What're you doing here?" McBriar demanded with subdued belligerence. "Look!"

He waved at motionless traffic, hundreds of passenger craft at the local level, big freighters above them, and at two majestic liners, small and high.
"They stopped, see? And I don't care who you are, you should've, too. The parade's coming."

Norg read thoughts, picked up the expected answer.
"I did not know of a pa-rade. I am sor-ry."

McBriar gave him a blank look of astonishment.
"Where you been, anyway? Everybody knows there's a Peace Parade every year. This is it, chum."
"I am sor-ry," Norg repeated.
"You talk funny," McBriar said in a worried voice. "Look, maybe you got a right here, and if so, I apologize. But you better let me see your-" he broke off as he caught movement far off. "Oh -oh. Here it comes. Stay where you are till I get back."

McBriar tilted his drive prism, swooped up on a long curve to official level, and brought his bright red craft to attention. To his right and left, other red traffic ships were regularly spaced, facing replicas of themselves across the parade channel. Below them and above, traffic was still.

SERGEANT RION McBRIAR paid little or no attention to the scene. He was no more consciously aware of familiar objects than that he was breathing. He had seen it so often, the individual ships, the shining roofs of the greatest city in the world, the sprinkle of pedestrians on crosswalks.

His strange encounter was in his mind, obscuring the oncoming parade. His thoughts drowned out ceremonial speeches from the leading ship. He had heard it all before-the history of this day and the pact it celebrated. He thought of the helmeted pilot and the peculiar craft that had moved when nthers stopped.

Not that the ship was really so strange, he thought. Everyone, these
days, colored his flyer or equipped it with gadgets. Individuality was the watchword. But there was a feel to the ship. That was it, McBriar said to himself. It felt different. And the pilot, too. That funny looking helmet, the hesitating speech.

Just my luck, he thought, if the guy is an Experimenter. If he's in with the big boys. I'll catch a little hell. Anyway, nothing happened, really. Nobody saw it-I hope.

The hope was thin, dying even as it formed. For bad luck had dogged his career and fended off even a sergeancy until recently. McBriar remembered with some bitterness how younger men passed over him to higher offices and how his contemporaries had become commissioners. All because of the breaks.

Somebody was a cinch to have seen the incident. Of course, it had to occur in his section. Perverse fate saw to that. It couldn't have happened to one of the other boys. Oh, no! They were all young men, headed for cushy jobs. No, it came straight to McBriar, and slight though the disturbance had been, it would wind up as a black mark on his record.

The parade began to pass. McBriar's eyes, filmed with gloom, were hardly aware of the glittering line of `ships. Only his subconscious registered the event and recorded the pompous spectacle. His conscious mind turned inward to himself.

Suddenly he stiffened, jerked his gaze to one side where a flash of movement marred the immobile symmetry of civilian traffic. His hand shot out to his controls but froze midway. Nothing was important enough to pull him out of position, not even that strange ship which now streaked across the front of the parade and disappeared.

McBriar cursed. He'd lose his sergeant's star now. That was certain. Not only had his brother officers observed his flagrant break of traffic rules and noted that it had occurred in Mc-

Briar's sector, but all the high and mighty officials on earth were in that front ship.

McBriar could picture their scandalized expressions as the peculiar craft cut across their bow, could hear the crackling messages which must even now be burning the ears of Captain Kennedy.

McBriar was stunned with despair. He would face Kennedy for this. And painful as that incident was sure to be, it was certain to be pleasant compared to the ordeal of facing his wife and kids later.

Myrna wouldn't bawl him out, no. That was the devil of it. She'd comfort him and try to build up his ego. But then she'd go off by herself and cry. And the kids would be casually contemptuous of his loss.
"What's an old star ?" they'd say. "We like the country. So what are we waiting for?"

And he'd reply in kind, wisecracking while packing to go back to the sticks, and with the heart of him breaking inside.
"If I ever catch that guy--" McBriar said aloud through stiff lips. His mind took it up, made pictures of satisfying tortures.

He'd just finished knocking the guy's helmet off with his own bloody leg when the signal came through for traffic to move again.

Hard on the signal came a voice, rasping from his monitor.
"McBriar! Wake up! And get down here. I want to talk to you!"

The sergeant went unhappily. . . .

AFTER his meeting with McBriar, Norg had watched the little red car pull away and assume position. With one swift comprehensive glance, he sized up the motionless panorama, the formal waiting. When the parade came, all the inhabitants in this locality would remain where they were. Should he go or stay?

He had felt the uneasy suspicions of the petty official who had stopped him. That one would be back to investigate.

Close investigation would not necessarily bring the truth to light, but it would force him to action which might prove disastrous.

Dangers here were manifold, but not to his person. If by some fluke thesewhat did they call their planet-Earth? -these Earthmen should learn that he was different and so pursue him, Norg's own fate would be sealed. He could elude them, and he could destroy some of them, but they would know.

In that knowledge lay disaster for his own people who waited for his report far out in space. Norg had learned many things since his scout ship had entered this planet's atmosphere, and chief among these was that the inhabitants of this planet were intelligent.

Weak, yes, and ill-prepared to resist an attack. But even so, though their intelligence was rudimentary compared to his own, they were keen enough to use sheer force of numbers to advantage.

Therein lay his own people's weak-ness-they were few in number. Only by complete surprise could they wipe out this Earth race and appropriate the planet. If one Earthman suspected that Norg were alien, that suspicion would generate a certain amount of uneasy alertness which might prove troublesome.

That official, for example, would return to complete his examination when the parade had passed. He was afraid of losing some bauble, apparently a symbol of his position. Though Norg could not understand such childish fear, he knew that it was important to the petty official. He knew that the official would prosecute his inquiry with dogged persistence and that exposure might well follow.

On the other hand, if he went away from here, a search would be instituted. His scout ship was distinctive enough to give direction to the search, and eventually someone would spot him and raise the authorities.

Norg made his decision. As long as he was a fugitive, these creatures would
not know, would not be frightened into action that might harm the invasion attempt. Furthermore, he had spent some time-enough time, perhaps-in this greatest of their cities and knew what he needed to know about this race. Before reporting to his flagship, he had yet to estimate the fruitfulness of the land.

He would go, then, to the rural spaces where eyes were few and danger minimized. If his report on the people themselves was sketchy, it should be counterbalanced by over-elaborate data on the planet itself.

He acted at once, swooping across the front of the parade. He caught a welter of horrified and angry thoughts from the flagship as he cut across her bow. Caught, too, thoughts of helpless rage. None could pursue, the pattern of the parade could not be broken.

A thought of exultation exploded along his brain. He was safe, then, for a time. He didn't need much time. This was perfectly obvious, as endless green fields rolled backward under him. There was a rich fatness in them, unlike the barren, dead spaces of other planets he had scouted.

Here was home for the homeless who had been forced out of their own by a rogue star.

He remembered the bright destruction of that far planet on which he had been born; remembered the grim despair which laid a curtain of thought around that vast caravan; remembered the search through stellar systems, the rising hopes when a new planet was sighted, the disappointments after exploration.

This was home. He felt it, knew it. No poisonous atmosphere, no killing gravity, no inedible staples. There it lay below him, fat with life, rolling with green beauty, and thrusting upward in the distance were stark hills which collected water in their season.

He dropped down in the vicinity of a small community. He could take samples here and continue his observations of such inhabitants as were available.

Then off to his own people, report; make a swift surprise attack, wipe out this race, every member of it, and-

At long last, home. . . .

SERGEANT RION McBRIAR was uneasy. He wanted to twist his hands, but resisted the loss of dignity this would entail.

He twisted them, however, in his mind as he waited for Captain Kennedy to open the interview.

He leaned forward on the edge of his chair as his superior went leisurely through a sheaf of official reports. He could see only the top of Kennedy's head, but the silver sheen seemed baleful to McBriar, as he knew the frosty blue eyes would be when they met his.

They did and they were. " The voice, however, was dulcet, seemingly sympathetic. The tone indicated that Captain Kennedy's sole concern was the happiness, comfort, and general well-being of Sergeant McBriar.
"Well, Sergeant," Kennedy purred, "I trust you are well?"

McBriar stiffened inside. He thought: so he's going to draw it out, cat and mouse.
"Yes, sir," he said formally. "I am well."
"And the little woman, Sergeant? She is well. And the children? Boys, I believe? Ah, yes, strong lads, both."

McBriar couldn't keep a small glow from his eyes, but his voice was impersonal.
"We are all well, sir."
"Good!" Kennedy said heartily. "You know, Sergeant, that many members of the force seem to feel that I place efficiency above human relations. Isn't that true?"
"I don't know, Captain," McBriar said evenly. "I haven't heard any talk. My duties keep me too busy to listen to gossip." A good thing, the sergeant thought, the guy can't read my mind.
"Of course," Kennedy said, "you are busy. But I'm sure that you are as aware as I of my reputation. I have
here-" he tapped the sheaf of reports - "some interesting data concerning efficiency. It concerns you, Sergeant. In fact, it is a long record of incidents which eloquently reflect your efficiency. Now, there are many who say that I would allow these reports to influence my personal relations with you. No?"

McBriar's jaw hardened. "I don't know what you're getting at, Captain.".
"Ah? For example, during your probationary period, your zeal drove you to reprimanding an Experimenter before you discovered his mission and identity. You may remember."

McBriar remembered. That was the first of a series of bad breaks. The man had been surly in response to routine questions, and McBriar had reacted as any officer should.

He said nothing. He waited for Kennedy to go on.
"And here is another, Sergeant. The Baltar robbery. You may remember the results of your investigations."

McBriar winced. He had acted on what he believed to be a bona fide tip. How was he to know it was a gag? He had gone ahead in pursuance of duty and arrested Captain Kennedy's brother-inlaw. He remembered the explosions.
"There are others, Sergeant," Kennedy continued, riffling the papers. "But why rub salt in your wounds? Let's get down to today's incident."

McBriar decided suddenly that he had had enough. After all, a man had his pride. He couldn't remain indefinitely before another in the attitude of a small boy caught stealing cookies.
"If you're going to break me, Captain, get at it. I don't have to take this sort of thing from you or anybody else."

Captain Kennedy showed a faint cold amusement. He touched a stud on his desk.
"I have stopped the recorder, Sergeant. What I am about to say constitutes language unbecoming an officer, and I have no wish for it to be on official records. I want you to know exactly what I think of you."

McBriar said, "Take it easy, Kennedy. I've been wanting to give you a beating for a long time."

KENNEDY got to his large feet. His wide shoulders were hunched, arms half bent, hands forming huge fists. His face held not even the false friendliness of a few moments before.
"If rules and regulations did not require a trial, I would kick you off the force, McBriar. But the evidence indicates that you were not wholly at fault. Now, I know that evidence doesn't even hint at the truth that you are the most miserable excuse for an officer I have seen in fifty years on this desk.
"You have no imagination, and what little brain you possess has become atrophied from disuse. You have only a habit pattern. You move straight ahead, blindly, doggedly, a mindless force which can adapt itself to no changing condition, however slight. The simplest robot reflects more credit on the human race than you, for it indicates that its makers have imagination and ability.
"You are merely evidence of a deplorable blunder on the part of nature. Whatever natural selection went into the process of bringing you to a contemptible manhood belongs to dark, lost ages."

McBriar was held motionless by shock and surprise. One man did not speak to another in this fashion. Controlled, and therefore all the more vicious, contempt dripped from Kennedy's slow words. They cut more deeply than the most vivid invective, were more shameful than public insult, more rousing than a slap in the face.

He, too, got to his feet as rage surged through him in adrenalin waves. His eyes glazed slightly. He stepped forward and threw a right jab at the mocking face.

What happened in the next few minutes was never very clear to him.

The sergeant came back to consciousness with only a hazy recollection of events. He noted the overturned furniture, scattered papers, the litter of office
supplies all over the floor, and reconstructed the fight to some extent. Then he got to his feet and saw, with surprise, that Captain Kennedy was affable behind his desk again.

Not a single ruffled silver hair, not a mark indicated that Kennedy had even exerted himself. His knuckles were over-red, but that was all.

His voice was pleasant enough, too, with its mocking overtones.
"Thank you, Sergeant, for the workout. I've been neglecting my exercise lately. I'm going to cut in the recorder again. Let me see, I believe your last remark was that you didn't have to take that from me or anybody else. Please sit down again before we resume."

McBRIAR was tired. He ached. He sat. He waited. Kennedy touched the recording stud again, waited a second, then said in shocked tones:
"Break you, Sergeant? Ah, no. Experienced officers are not so plentiful that I can dispense with one whose only fault is an-ah-affinity for bad luck. But before I give you another assignment, I want details on the incident at the parade. What was it?"
"I-I don't know," McBriar muttered.
Kennedy's eyes widened. "You-don't-know? You can't mean that, Sergeant."
"I was about to look at his identification," McBriar said desperately, "when the parade came into sight. I told him to wait and took my position. That was more important. So he took off when the parade came abreast."
"I see. Well, no matter. We can find his name easily enough. What was the type and number of his plane?"
"I-uh-"
McBriar fell silent before the look of horror which overspread Captain Kennedy's features.
"Yes?" Kennedy whispered. "Yes?"
"I guess it didn't have a number, Captain."
"You--guess? Did you say guess, Sergeant?"
"I mean, it didn't have a number. It was a kind of funny ship. Queer, somehow."

Kennedy continued to whisper, words falling softly from a tight mouth below icy eyes.
"It didn't have a number, and you let it get away? Is that-can it be-true, Sergeant?"
"Now listen, Captain," McBriar said earnestly. "I couldn't do anything else. Here's what happened exastly."

He related the incident from its beginning, while Captain Kennedy listened. And as he listened, the captain tapped the top of his desk slowly with one finger tip. When McBriar had finished, he continued to tap the desk for a long time.

Then, "Give a description of this plane, Sergeant."
"Well, it's-uh-that is, I can't exactly, Captain."
"Then give a partial description of it, you idiot," roared Kennedy. "Give us something we can pass on to the men. They must know something about it before they can find it."

Sergeant McBriar was unhappy. He dropped his good eye to the floor. He really twisted his hands.
"I can't, Captain," he said miserably. "It was just-queer. It hād a funny-uh-feel. It didn't feel like other ships."
"You touched it, Sergeant, and don't know any more than that?"
"Well, no, I didn't touch it, Captain. You could feel it by just looking."

Captain Kennedy's jaw dropped. He didn't say anything for a long time. Then his speech came sadly, gently.
"You married a fine woman, Sergeant. It isn't her fault that you are as you are, and she shouldn't suffer. I should be perfectly justified if I chose to strip you of all insignia and reduce you to your misbegotten normal.
"But I'm soft-hearted, Sergeant. I treat my men as human beings. I have consideration for their families. So I am not going to break you, Sergeant, even though your action today-or lack
of it-reflected discredit on the department and caused me-me, Sergeant!to receive severe reprimands from the international council. I am going to send you to a post befitting your peculiar talents."

Kennedy paused, and to McBriar's uneasy eye he was licking his chops, savoring what was to come.
"Your duties will not be onerous, Sergeant. But even so, you will report to me personally before you so much as give a citizę directions to the post office. I am giving you another chance, and I am going to make sure that you make good." Kennedy paused again and smiled. It was not a pretty smile, McBriar reflected-it was all teeth. "In Rayville," Kennedy said.

0N THE third day, Sergeant McBriar began to enjoy his work. True, he had little to do that was worthy of mention, for the community was given over to the serious business of developing agricultural products. But he mentioned every move he made, short of breathing, to Captain Kennedy. He managed to interrupt Kennedy at least a dozen times each day and at least once in the dead of each night when coyotes came down from the hills and howled outside the poultry station.

Pursuing his theory that eventually Captain Kennedy's choler would overwhelm him-and perhaps bring on heart failure-he brought minor events to the attention of his superior at 10 o'clock of the third morning, at the time the captain was wont to slip out for a midmorning coffee and cigarette.

If Captain Kennedy was annoyed, or even beginning to crack up, he kept all hint of it from the image which appeared on McBriar's panel screen.
"Ah, Sergeant," he said pleasantly, "what world-shakers have we this morning?"
"Sergeant Rion McBriar reporting from Rayville, sir," McBriar intoned. "At eight-thirty-two this morning, three boys allowed their model rocket ship to
got out of control. Result: it crashed against the pyro-plex front of Mrs. Archer's sun porch and seared the pane so that it is completely opaque."

Captain Kennedy pursed his lips.
"Hmm. Now don't lose your head, Sergeant. Keep calm, man. You've handled things as big as this before. Remember the time the man asked you what to do with a dead cat. Keep that in mind, believe that you are equal to .this emergency, and you'll be all right. Do you have any suggestions?"
"Yes, sir," Sergeant McBriar said smartly. "I know the identity of the culprits and-"
"Good work, man, good work!" Captain Kennedy interrupted. "We'll have you using your head yet. Go on."
"-and I thought their parents should replace the pane, sir."
"Exactly, Sergeant. Anything else?"
Sergeant McBriar winced at the patronizing tones. He didn't like being treated as a small boy. However, it was in a good cause-his avowed purpose being to drive Captain Kennedy to mad-ness-and he simulated a flush of pleasure

Besides, the thought-and the thought brought a real flush of pleasure-he had something of a lulu for the captain this morning.
"Yes, sir." Sergeant McBriar kept excitement out of his voice. "Another of the plant episodes."
"Sergeant, you do have your troubles. So somebody pulled up a couple of petunias again, eh?"
"No, sir, it was potatoes."
"I was using petunias symbolically, Sergeant." Captain Kennedy's tone sharpened a trifle, and McBriar glowed again.
"Sorry, sir," he said.
"So it was potatoes. Have you any further news to give me of this night marauder?"
"No, sir, except that he's been seen. That is, his ship has been seen."
"Ah? What kind is it?"
"Why-uh-it's a funny kind. I didn't
get a very good description. It's-uhapparently like the one that cut across the Peace Parade, maybe the same one."

Captain Kennedy's blue eyes sharpened on the screen. He became a trifle avid.
"Where is he?" he snapped.
"Why, I don't know, sir," McBriar said blandly. "It's out of my sector. I'm confined to the limits of Rayville."
"Never mind that!" Kennedy barked. "Go find him."

Sergeant McBriar quoted the rules with a fat satisfaction.
"Section 402, subsection 26, article 16, paragraph 4 of the Official Code, sir, says, 'No officer of the law may leave his post if such departure renders that post liable to unregulated movement.' I'll have to be relieved, Captain, if I go after him."
"You'll do what I say, you nitwit! Rayville could get along forever without supervision."
"I'm following orders," McBriar said stubbornly. "Those orders are part of the official record made in your office. I stand on my rights."
"You'll stand on your ear," Kennedy fumed, "if I have to come out there. Remember that. Get-after-thatman! I want him!"

Captain Kennedy cut the circuit. Sergeant McBriar grinned, waited ten seconds, called it again, and presently Kennedy's red face filled the little screen.
"There's one more thing, sir," he said apologetically. "I hope I didn't interrupt you again?"

Kennedy's jaw set. His eyes reddened. He said nothing.
"There was a death last night, sir."
"Well?" Kennedy grated. "What do you want me to do--handsprings? Natural deaths don't concern you."
"But this wasn't natural, sir. He was killed."
"Killed? How?"
"Apparently by the same person who's been stealing potatoes and corn and what not. How, sir? Nobody knows."

THE time had come to go, Norg decided. His soil analyzers had shown this planet to be similar to his own before it had exploded. He had eaten this planet's food and detected no bad effects. Now was the time to go, report to his people, and lead them in lightning attack.

The effect of his weapon on the native last night was disconcerting. The being had simply fallen dead, with none of the pyrotechnic displays which normally accompanied the use of his device. These beings were more rugged than his own people. But, he consoled himself, they died.

They could die en masse as well as singly.

But now he must go and he must drift into noonday traffic as if he were one of them. He must not repeat his earlier mistake of violating their idiotic laws. He must become one of the herd until he was away from the nearby settlement. Then he could zoom off into space. . . .

McBriar said, "You got here quick."
Captain Kennedy was in no mood for chit-chat.
"Where's your ship ?" To the youth in corporal's green, "You stay here, Beeks." To McBriar, sharply, "Where's your ship, man?"
"On the roof, Captain."
"Well? Get moving!"
When they were in the little red plane, Captain Kennedy gave crisp orders.
"We'll comb those hills till we find him. I want to get my hands on him for about fifteen minutes. After that, we'll question him.
"But the rules-"
"The devil with the rules! He created a disturbance in a Peace Parade. Do you know what that has meant to me? No, you wouldn't. Never will. You're about as likely to become a captain as I am a monkey's grandmother. Well, what's funny about that?"
"Nothing, nothing," McBriar said hastily. "But look, Captain, if you're holding this guy to blame, then why do I take the rap? Why send me out here?"
"Shut up!" Kennedy snapped. "I'll ask the questions. Get going!"

Sergeant McBriar reached for the controls, scanned the sky overhead, and froze.
"L-look !" he gabbled. "It's him !"
"Stop all traffic!"

McBRIAR touched the stud which lighted a warning signal on all panels and launched the little ship toward the quarry. That one came to a stop sluggishly, McBriar noted, but stopped nonetheless. He pulled alongside, hoping that the man was an Experimenter and that Captain Kennedy would lose his stripe for interference.
"Pull over to that pylon!" he ordered.
The pilot apparently started to obey, then fled. Captain Kennedy pulled his gun.
"Aw, Captain," McBriar protested. "My gosh, not that!" He cited another rule. "The Official Code says no emergency justifies taking a human life. You know what'll happen, Captain, if you kill him."

Captain Kennedy lowered his arm. "Catch him, then! You fool, get going!"

Sergeant McBriar set the ship into motion at top speed, but the strange craft pulled away faster and faster.

Captain Kennedy sighted again. McBriar laid a hand on his arm.

Captain Kennedy jerked away from McBriar's restraining fingers.
"You fool, I'm only going to disable his ailerons. You attend to holding the ship steady."

Kennedy aimed, depressed the activisor.

What happened then was awesome, spectacular, and satisfying to McBriar. First, the tail end of the ship exploded. This seemed to set off a chain explosion which progressed swiftly, but not faster than the eye could follow, along the length of the ship and sent brilliant bits of passenger and ship plunging to the ground. McBriar followed more leisurely.

During the descent, Kennedy mut-
tered over and over :
"It's impossible! It can't happen !"
"Then they can't break you, Captain," McBriar said cheerfully. "If it's impossible, they can't take your uniform away from you."
"Listen, McBriar," Captain Kennedy said, "I don't imagine anybody else saw me shoot. Suppose we don't mention it."
"Why, Captain! You shock me. I am a sworn officer. Truth and honesty, that's me. I can't twist the truth."
"You won't lose by it," Kennedy promised.

They landed, then, among the litter in an open field.

Presently other ships collected, but McBriar waved them away.

THEY examined the residue and saw that no explanation could be reconstructed from the charred bits of matter and a half dozen scorched potatoes. Captain Kennedy then sat on a rock and stared into space. McBriar called in for chemists and photographers and joined his superior.
"I still don't understand it," Kennedy muttered. He looked up at McBriar. "Oh nuts, I suppose I've got this coming from you. I've stopped you from going up in the service, the same as I've held back everyone else. I was proud of my job and wanted to keep it. Lord knows, though, what my wife will say. Well, I pulled a boner. I'll pay for it."

McBriar thought: why, the guy's human, after all.
"Uh-look, Captain," he said. "I guess I wouldn't do anybody any good by testifying that you killed the guy. I'm not glad you did, exactly, even if he did cause me trouble. But if it had to be somebody, I'm glad it was him. He won't get me demoted again. So I'll say it looked like internal combustion."
"Sergeant, you'll never regret this," Kennedy said brokenly.

McBriar waved away the hand.
"Don't get me wrong. I still hate your face. And if I do this for you, I want one favor."
"Name it, McBriar!"
"It's not a promotion," McBriar said. "I'll take that if I earn it and not as a bribe. But you can bribe me. Remember that beating you gave me?"
"I'm sorry about that, Sergeant."
"Well, I'm not. I'm sore. So here's what I want. You're a little bigger than I am and maybe better with your fists. I never went in for fighting. So you can still whip me, I guess. All right, here's what I want. Drop your hands and let me take the first sock."

Kennedy stared. "You think I'm mad?"
"What I think is beside the point. Look, Captain. Nothing like this ever happened before. / If the truth goes in, you'll be busted for killing an Experimenter. That's what he must have been, because a ray gun won't do that to ordinary stuff. That ship was some new kind of material.
"But if I say it was internal ccmbustion, the big shots will just be sorry, but not sore enough to kick you off the force. I'll say it, but I want one good sock. Drop your hands!"

Captain Kennedy's jaw set. He dropped his hands.
"All right, McBriar," he grated. "I'll remember this."

Sergeant Rion McBrair grinned. "So will I, believe me!"

He swung. His fist landed with a satisfying crack on Kennedy's jaw. His superior did a satisfying loop in the air. But, to McBriar's amazement, the captain bounded to his feet and before McBriar could defend himself, took a swing of his own.

The blackness paled. Kennedy was helping McBriar to his feet.
"You dumb Irishman," Kennedy said with a grin. "Nothing was said about me returning a sock."

McBriar shook his head, glared, then grinned.
"No," he admitted, "nothing was said about that. Ain't I a dope?"

He stuck out his hand. Kennedy took it.


Lou Costello wonders what he's gotten himself into

## ABBOTT and COSTELLO

AFTER appearing together in thirty films, Abbott and Costello have finally gone right out of this world-or tried to-in Uni-versal-International's "Abbott and Costello Go to Mars." Produced by Howard Christie and directed by Charles Lamont, this marks the first time that a top-flight comedy team has turned to science-fiction for its material.

Some day there may be an Oscar-winning space drama entitled "A Rocket Ship Named Desire," but in the meantime, anyone who wants to have fun with space travel has our permission. Besides, there's no telling who will be the first to set foot on another world, and we don't want to be caught with our planets down if it is a couple of jokesters, after all.

Orville, played by rotund Lou Costello, and Lester, played by his acidulous sidekick Bud Abbott, find themselves the unexpected denizens of a spaceship. The ship, modeled after a section of the V2 rocket is (if you'll pardon us) a mighty old-fashioned way to get to Mars. Of course, who knows from all the buttons as Les-
ter and Orville head for the wild nothing yonder via the Holland Tunnel and Brooklyn Bridge. They narrowly miss the Empire State Building and land-not on Mars, but in New Orleans! And, since you can't tell Mars from the Mardi Gras without a program, Lester and Orville, surrounded by grotesque masqueraders, think they've made the jump successfully.

Outfitted in spacesuits and helmets, they blend in with the scenery quite inconspicuously until two nobsters, similarly attired, rob a - bank. On the lam, they force the two comedians into taking off. This time, it's for real.

In the manner of Wrong-Way Corrigan of early acronautics fame, the boys make it-not to the Red Planet, but to Venus. When they find the planet populated solely by luscious glamazons-who cares? Whether the last laugh is on the Earthlings or the Venusians (or should it be Venuses?) we leave to you movie-goers-if you can tear yourself away from FSM long enough.


Abbott and Costello and Mari Blanchard, Queen of Venus

## SPOOF SPACE TRAVEL

The supporting cast includes exotic, breathtaking, Virgil Finlayish, Mari Blanchard. Want to know what special talents Miss Blanchard brings to her first acting assignment as Allura, Queen of Venus? She was New York's highestpaid bathing suit model before she turned actress. We suspect it was type casting, but Mari certainly fills the bill-and more.

Along with the ship, ray guns and a flying saucer, the cast includes eight of the contestants in the most recent Miss Universe beauty pageant. The gals deserve at least one supersonic whistle, and several not so supersonic for their performances as astral bodies.
A production gimmick you might want to set up in your backyard was the picture's spaceship cabin. Cradled in a giant wheel and mounted on rollers, it spun in various directions. To give the illusion of free fall, the players were bounced from deck to bulkhead and back again, saved from serious injuries by their padded suits. But one unexpected effect: after being unceremoniously tossed about, the cast
had to be fortified with Mothersill's famous seasick remedy before it could continue its space travels.

Not only did Lou Costello suffer a pummelling, but after lugging the spacesuit, plastic helmet and magnetic-soled boots around the studio for four days, he lost five of his treasured pounds. For all we know, space may prove popular as a reducing salon.

Along with other rumors, the moviemakers were plagued with airplanes swooping low on the lot for a close look at the flying saucer which forms one of the movie's important props. Curious throngs, unaware that it was for a Hollywood epic, started reporting its existence to official headquarters. Camouflaged with a tent, shooting proceeded.

We think it was all a gag. What those pilots were really interested in wasn't the spurious flying saucer, but the flying sorceresses.

Volunteers for the first flight to Mars (via Venus) line up at the right. But get your theatre tickets while you wait.-Pat Jones

ICOULDN'T see the faint vertical scars in front of Mrs. Ogilvie's ears. They were hidden behind long beautician's curls that made her look like a hennaed señora. But I knew they were there. The stiffness of her mouth, the slight expansion of what should have been thin nostrils, the upturned outer corners of her tiny eyes-all told me Mrs. Ogilvie had recently had her face lifted.

She was a scrawny old bat. When she spoke, her lips moved about as much as a ventriloquist's talking for his dummy. She said, "Mr. Williams, I want you to find my husband."

I thought I probably would find him, poor devil. I said, "I'll have to know something about him, Mrs. Ogilvie. We don't operate by guesswork. And it'll cost you-unless we're lucky."

She said, "Money's no object. I want Philip back."
For one terrible moment I thought she was going to cry. If she did, I was afraid that rebuilt face of hers might crumple like a wad of wet paper. But she got hold of herself in time and gave me what I wanted-or what she could. She was practical, matter-of-fact. Whatever else she was or wasn't, she wasn't dumb.

Philip Ogilvie had taken a walk out of that Sutton Place apartment about a week earlier. He had said he was going out for the early edition of one of the morning papers-the New York American. No there had been no quarrel. He hadn't been unaffectionate. Quite the reverse. In fact, for a woman of her years-she surprised me by being so frank about that, seeing she'd had her face lifted-his ardor had been a strain and embarrassment at times.

I thought, well, you never know, and asked her how long they'd been married. She said, "Twenty-seven years last March," and that shut the

## There's Always

door on the May-September ideas which I had been secretly nourishing.
His business was money and, up to his disappearance, he had been one of the few still making it on the Street. No gaudy plunging, mind youjust sound speculation that brought it in a few hundred grand at a clip. I thought I'd like to have the knack for it-sound speculation. It was a new one to me.


# Amanda 

## By SAM MERWIN, JR.

For hobbies, Philip Ogilvie liked sports. He read Damon Runyon in the American evenings, Bill McGeehan in the Herald Trib mornings and Joe Vila in the Sun afternoons. He rarely missed an afternoon at the Stadium or the Polo Grounds during the season and had even been known to cross the river for a look at Burleigh Grimes and his Bums. He went to a lot of football games in the fall, and hockey and six-day bike grinds in the winter.

Quite a sportsman. Philip Ogilvie. I wondered if I hadn't bumped into him at some of these spectacles. And then I thought, he'd be sitting in boxes while I was glad to settle for bleacher seats.

I said, "Does he play anything himself, Mrs. Ogilvie ?"

She said, "He was a Class-A squash racquets player until I made him give it up three years ago. His heart. Since then he's played a little golf. Is there anything else?"
"No other hobbies?" I asked.

SHE thought a moment-she'd have frowned if that stretched skin of hers would have let her-then she said, "Well, Philip always had a lot of doctor friends. He used to like to sit in on surgical clinics when they asked him to." She looked faintly distressed at the idea of watching some poor sufferer cut open on a table in front of spectators. I could go along with her on that.

I said, "Got a picture?"
She hesitated again. Then she nodded toward the piano and said, "You'd better take that one. It's a good likeness of Philip. But-I'd like to have it back if I may."

I said, "Sure, lady," and got up and looked at it. It'showed a long-faced halfhandsome young man with a sort of sardonic half-smile. He couldn't have been a day over thirty. I said, "Haven't you got something more recent, Mrs. Ogilvie?"

She just looked at me and I was glad I couldn't read minds. There was something in back of her eyes that scared me. Then she said, "Take it out of the frame. The photographer stamped the date on it when he printed it."

I pulled out the velvet stand-back and drew the photograph from its silver frame. The date was there. It had been taken only a couple of months before. I turned it over and looked at the face again. I opened my mouth to say something but Mrs. Ogilvie's eyes stopped me. I finally said, "Okay, Mrs. Ogilvie. This'll do fine."

Then I got out of there in a hurry.
Back at the agency we had a couple of hundred prints made of the picture. We sent most of them around the country and sat back and waited. We got a few nibbles here and there, but they didn't pan out. And then we got a letter from a city down South. Rather, from a lieutenant in the state constabulary. He said he had our man spotted and could we send somebody down there to wrap it up.

The boss grumbled about that, but since Mrs. Ogilvie was paying the checks, and they were good, he told me to get packing. After all, Philip Ogilvie hadn't committed a crime by walking out on his wife. There was certainly no hardship involved, not even kids. There was nothing we could make a police case out of.

The boss glowered at the picture and dry-chewed his cigar and said to me, "You say his wife's an old broad ?" And, at my nod, "And this joker's been married to her twenty-seven years?" And, when I nodded again, "If you find out how he does it, let me know. I could use some myself."
"You and me both," I told him and took a powder as soon as he wrote out my expense-dough voucher. It looked open and shut but there was one thing I didn't like about the case-c-it didn't make sense.

When I got off the train the air in the station was even hotter than it had been in the Pullman-yeah, with Mrs. Ogilvie paying the freight it was strictly an extra-fare job. Lieutenant Thompson was there to meet me. He was a chunky blue-chinned citizen who wore a crumpled Palm Beach suit and a drawl you could slice with a straight razor. He piled me and my one bag into a black sedan, a Buick, and rode me right out of town.

He finally pulled off the road and stopped on the top of a hill. On our left was a sizeable hupk of slash pine woods. On our right was part of a golf course. There was a well-trapped putting
green right on the other side of the fence beyond the ditch. A bit of breeze picked up the red flag on top of the stick marking the cup and I read the number 14 on it in white letters. Just .beyond it was the tee for the next hole, the fifteenth.

I said, "Nice view, Lieutenant. You want me to look at it?"

He nodded and dug a pack of limp cigarettes out of his breast pocket. I took one in the interests of good will, got an end in fair shape and accepted a light. When he waved the match out he said, "I want you to look at a guy when he comes along."

I shrugged and said, "Okay, Lieutenant, it's your bailiwick. When you get tired maybe you'll drive us somewhere and we can get a drink and a bite to eat. It's on me-my client's loaded."
"Now that's right good hearin', Mr. Williams," he told me. His eyes crinkled like his Palm Beach suit when he smiled. "The name's Jarvis."
"Cheer up," I said. "Mine's Dirk. Some parents we picked."
"I reckon we didn't have much choice in the matter," he told me. He reached into the dashboard compartment and pulled out a pint of corn. It was some of the best whisky I'd ever tasted, and I told him so. He liked that and said, "It better be good, Dirk. I got these back-country bumpkins trained so they don't dare give me rotgut. Some of the stuff they brew would blow the top off your head."

$W^{1}$E SETTLED down to a real chummy session. In spite of the way Thompson talked I got the feeling he was a good cop. You can always tell a pro. I figured he had something in mind and conditions could have been worse in spite of the heat, so I waited it out.
It was a sunny Saturday afternoon and the links were crowded. We watched one foursome after another come up the hill to the green, take their putts, then go onto the fifteenth tee beyond. I was beginning to get fed up with it after
about an hour when Thompson said softly, "Take a look at that tall fellow in the yellow pullover. Got a nice easy swing, ain't he?"

I took the neck of the almost empty pint out of my mouth and followed his eyes. The minute I looked at Yellow Sweater I got the pitch. He was wearing a dark coat of tan, but otherwise he was Philip Ogilvie's picture in the flesh. He was even younger and better looking than I'd expected.
I watched him hole out a long putt, then lead the way to the tee. He moved with the easy insolence of a young man with plenty of assurance. He was first off the tee, and he whipped into that little white ball as if he hated the wrapped rubber inside. From the attitudes of the others I could tell he had really belted it.

When he had vanished over the lip of the hill I looked at Thompson. There was a question in his eyes. I nodded and he stepped on the starter and said, "Now maybe we better put somethin' solid in our guts. I didn't want to talk to you if I had the wrong fella. We got us a bit of a situation, it seems like." He pronounced it sitch-ee-ay-shun.

He drove me about ten miles, part of it through the rim of the city, to an old pillared mansion framed in lawns and willows alongside a creek so sluggish it didn't look like it moved at all. I spotted a Rolls, a Duesenberg, any number of Packards, Caddies and Pierce Arrows in the parking lot. Thompson gave me a quick look before he got out of the car. He said, "It's a good thing you got you a rich client, Dirk, boy."

I decided that since he had led me straight to my skip-out, neither Mrs. Ogilvie or I could kick about footing the bill. We had the first real mint juleps I'd ever had in my life and followed them with some kind of lobster soup, a planked steak that could have fed six with all the trimmings, some kind of flaming ice cream and black bitter coffee you could almost cut into squares like fudge.

The headwaiter put us in a dark corner, which was okay with me. A couple of working stiffs like us were definite misfits in that kind of a place. None of the other men and women in the room looked or sounded as if they had a problem in the world beyond their next divorce or their next yacht, or maybe their next polo pony.

We had us a couple of real cigars with our coffee and when I'd got mine lit I said, "Thanks, pal, but what's the pitch?" Somehow I had an idea he wasn't enjoying the free load like he should have. He didn't even quite finish his two-thirds of the steak and every so often he'd stop eating and hate himself for not having more fun.

Now he said, real soft, "Dirk, you're here on vacation."

I started to say, "The hell I am," but something in his eyes stopped me. They were crinkled again, but not from a smile. He was dead serious. So I waited him out.
"You're just a Damyankee who won a couple of lucky bets and wants to spend some of it where livin' is a heap cheaper than it is up No'th. I'm stakin' you out in a joint called Happy Rest a couple of miles from here. The only things in its favor are it's protected and wide open-and it backs up on a flock of big estates."

He paused, then went on with, "You go on down to the bar when you get settled. It's Saturday, and things'll be right gay. There'll be a little dark gal there, waitin' for her date. Her name's Amanda Lopez and she works for Mrs. Dulac in one of the big houses."
"Okay," I said. "So I work close to this Judy. Then what?"
"Your Mr. Philip Ogilvie," he told me drily, "and our Mr. Brett Fearing have been payin' Mrs. Dulac an extended visit the last three-four weeks."
"They're the guy in the yellow sweater ?" I asked.

E NODDED. "You'll do right well, I reckon," he went on. "This Lopez
gal likes action. Just don't call her Mandy."
"I'll try to remember," I told him. Then, because I was getting more curious by the second, "But if this little gal likes to play, why don't you handle it yourself-or put one of your own boys on it?"
"I'm a married man," he drawled, straight-faced. "Besides, I've had a couple of the boys on it already."
"Got 'em all pegged?" I asked. He nodded. I knocked a good two inches of ash off my cigar and said, "Maybe I'm dumb, but what in hell does this play have to do with my identifying Philip Ogilvie, or Brett Fearing, or whatever he calls himself here ?"
"You ain't positively identified him yet," Thompson informed me, as if I didn't know. "You might not find it so downright easy if Mr. Ogilvie-Fearing decides to play it pat."

That was true enough. I could send Mrs. Ogilvie a wire and have her come galloping south on the fastest post-chaise-but if her husband denied his identity it might take some doing to prove who he was. Remember, he hadn't committed any crime, he hadn't been fingerprinted-and he seemed to be tied up with the champagne set. Besides, I wasn't in any hurry to get back to New York.

So I said, "Okay, Jarvis, I'll play. But what's the real deal and how do I and my skipper fit into it?"

He looked actually worried. He was scraping the tip of his spoon on the tablecloth when he said, "I wish I could give you the answer, Dirk. I'm not sure of a thing. All I know is we got us a bunch of unsolved disappearances-and all the clues we got lead right to this Mrs. Jeanne Dulac. She was Jeanne Morley before she married."
"Okay," I said, "so what's a Morley ?"
"It's the snag in the ointment," Thompson told me gravely. "We've had us two United States senators, five Congressmen and a whole slew of judges and governors named Morley in this
state. The Morleys are even kissin' kin to a couple of ex-Presidents."
"I catch," I said. "Now what's a Dulac?"

He shrugged and looked weary. He looked tired all over. Even his shirtcollar looked tired. He said, "Nothin' much, I reckon. He was a doctor in the City. The talk has it Jeanne Morley married him out of spite, when a guy she was steamed-up over refused to shed his wife."
"You said 'was'," I told him. "What happened to Dulac?"

His eyes were sunk deep in his head. But they were steady on mine as he said, "Who knows? Doc Dulac ain't been seen since a couple of days after your skipper hit town."
"Why don't you get a warrant and look for him? I asked.

His eyes dropped. He fingered his spoon again. He said, "I reckon you know the answer to that."
"Too much Morley?"
"Too much Morley."

ITHOUGHT it over. I said, "And you want me to crash the house and take a look for you, is that it?"
"You're on the beam, Dirk," he told me. "We want evidence to get a search warrant. You want something on your skipper. Dammit, I'm givin' you all the co-operation I can."

He pushed his chair back, but I didn't move. I said, "There's more than that. What about these other disappearances? What gives?"

He sighed and rumpled his short black hair. He said, "Bums, mostly. Some dames. No-account folk. But they're beginnin' to add up to somethin' frightenin'. Besides, a thing like this gives the whole outfit a black eye."

I looked at my watch. It was already past eight-thirty. I said, "I think I'll go back to New York."

He said, "That's quite a wrist ticker you got there, Dirk."

I was proud of that watch. One of my few grateful clients had given it
to me the year before. It was one of those gold Swiss things with little slits in the dial that showed the hours, minutes and seconds on tape moving underneath. It wound itself and it needed no regulation. I let Jarvis look it over.

He grunted with passive envy, then said, "Let's go."
Happy Rest was a dive-one of those roadside plants with a dance floor and restaurant downstairs and what passed for rooms upstairs. My room was about nine by twelve. It contained an iron bed covered with chipped white paint, one chair that looked as if it had been discarded from somebody's kitchen, a washstand with pitcher, basin and one darkwhite towel, a bureau with one corner propped up by a wooden block, a flyspecked and yellowed picture showing Confederate women sewing on a Stars and Bars. It east me ten bucks a week. I hoped to hell I wouldn't have to use up the entire ten living there.
Judging from the sounds that came through the walls on either side, the Saturday night bedlam was in full swing, upstairs as well as down. I went down and found a table. The orchestra was riding out full blast on the Washington and Lee Swing. It consisted of a colored pianist, a blue-gum drummer with patched instruments, and a mulatto saxaphonist who seemed to be suffering from a split reed. It was hotter than the hinges of hell.

The waiter who came around looked like walking jaundice. He asked me a few questions and I told him I was just traveling around. He looked at me suspiciously, but got me a pint of corn for two bucks. The minute I tasted it I knew I'd been robbed blind.

The place stunk of sweat, but the dancers seemed to be having a ball. They were doing some form of the Lindy Hop. Most of them had steamfitters' haircuts or no haircuts at all. The girls looked a little better-but not much. My pal Jarvis had planted me in a rough spot.

When the musicians finally took a rest
and retired for their between-set reefers, the crowd on the floor drifted back to the tables. I looked for little dark girls who looked like plenty of action. There were two of them present who would fit the bill. But one of these was reeling drunk and had to be propped up in her chair.

The other girl interested me. She was sitting with a mob of five or six people two tables away. She had a lush, compact little figure with an unexpectedly slim waist. Her black hair was shingled, and framed one of those faces that looks almost plain in repose, but lights up like an electric sign in a smile.

If that was Lopez, I decided, things might not be so bad after all. I caught her dark eyes on me a couple of times and gave her back in kind. When the yellow-faced waiter stopped by her table I saw her question him. Then she gave me a real going over. I let her do it for ten seconds, then grinned at her and pointed at my glass and one of the empty chairs at my table. She looked away.

When the music started again she didn't dance. That was the tip-off. I sat there and waited and pretended to pay no attention. A minute or so later she dropped into the empty chair. I said, "Hello, honey, care for a slug of this liquid death?"

She didn't answer. She just looked at me as if she was trying to read my skull. Then she gave my body the same business. Then she said, "My, but you're strong, Yankee man."
"The name's Dirk," I told her. "What's yours, honey?"

She said, "Amanda, Dirk. I will have that drink now."

WE HAD it. Then we had anotherand another. I gave her the business about being a drifter with a few bucks and suggested we spend a few of them together. She didn't seem to mind and told me she was a maid at the Dulac place on the other side of the brook. I called her Mandy on purpose and got my
ears skinned for that and suggested we split another pint in my room upstairs.

I didn't know whether to be surprised or not when she said sure and went on up with me. Later I decided Jarvis Thompson was truly one of nature's noblemen. Little Lopez proved to be quite a dish. She was fresh and young as a kitten but she had been around. Once or twice, though, when I got a look at her eyes when she wasn't on guard, I got a little frightened. They looked older than Egypt.

We made a date for the next afternoon, when she was off, before she left. I made a crack or two about not having had a decent meal since I'd left New York and hinted at a handout from the kitchen of the Dulac mansion. She didn't seem to think it would be impossible to arrange. We were a very friendly couple indeed. She liked my muscles and I liked-well, I liked her. . . .

I met her at four the next afternoon near a gate on the path that led from the rear of my palatial hotel through the white-oaks and willows, across a rotting wooden footbridge that spanned the brook, to the well-groomed back gardens of the Dulac mansion.

Amanda looked as if she'd never stayed out after nine a single night in her life. Me-my knees were watery, the back of my neck had intermittent hot flashes and my eyes felt like holes in an asbestos curtain. Amanda, the little devil, seemed to think it was funny. But a minute later she took pity on me and said, "We got something at the house that'll fix you right up, dear." Then, when I hesitated, "It's okay, Dirk honey, everybody's gone out but cook-and she's asleep."

So I cracked the Dulac mansion-just like that. I tried to tell myself things were going too easy, but then that little Lopez started frisking around me and I decided to ride with the current. Some things are too damn much fun to risk tampering with.

The Dulac mansion was just that-it
looked like a Hollywood movie set, only better. There were all sorts of outbuildings and formal gardens and finally the house itself. It was a huge white collonaded job with a back door more impressive than the front doors of a lot of millionaires' houses up North.

But I did notice one item. We walked up a dirt lane to the service entrance, and on a big rock near the gate that led to it I spotted a hobo sign-one of those trick crosses that tells the gentlemen of the road that here is a spot for a good free handout.

Thinking back to what Jarvis had told me about the disappearances, I was both bothered and reassured. The sign was a definite lure for bums all right-but it also seemed to mean that at least one of them had walked away happy. Unless someone in the house had put the sign there for bait.

The kitchen was about the size of a railroad station-with rows and rows of gleaming copper pots and pans hung on the walls. Amanda looked quickly around, then led me into a sort of sitting and dining room combined off of it. She said, "Wait right here, honey-I'll have you fixed up in a jiffy." She kissed me and pushed me into a chair and went twinkling back toward the kitchen.

I could hear her humming snatches of an odd little tune through the open door, as she got busy making something for me. I might have just sat back and relaxed but for one thing-I got the damnedest impression of being watched.

YOU'RE always hearing about people who can sense when someone is staring at them. As far as I'm concerned, it's so much hogwash. But just then I could feel it. I tried to look relaxed and at the same time to find the source of the feeling that was bothering me.

I couldn't find it. The room was furnished with worn but comfortable wicker chairs and a table that probably had been discarded from the front of the house. - There were chintz curtains at the windows and a table strewn with
magazines-mostly confession or movie books and a bright-colored copy of Ballyhoo. The walls were decorated with a flowered wallpaper and hung with some hunting prints.

But I was still feeling that way when Amanda came back, carrying a tray. On it were slices of ham and chicken and biscuits and a pair of tall frosted glasses. She put it down on the table and said, "Wade in, honey-this will do it for you."

As I got up to help myself there was a sharp click somewhere. I must have jumped because Amanda giggled and said, "These old houses-they make more noise than a silly old ghost story."

It didn't sound like an old-house noise to me. But I waded into the food and drink, both of which were great, and made an occasional pass at Amanda, who was better still. After a while we went back outside, and this time, when she led me into a secluded copse among the trees, things went a whole lot better. That was a beautiful twilight.

Later that evening, by prearrangement, I met Jarvis. He was late and I got a little sore and said, "What kept you-you're twenty minutes late."

He pointed to his dashboard clockit read ten o'clock on the nose. I showed him my wristwatch-it read twentyone minutes past ten. I told him his clock was wrong, and he insisted it wasn't. We both acted like kids and finally checked it against a clock in the little town nearest to us. My watch was wrong by that clock, too. I said, "I can't figure it out."
"Better let me take it to town for you," he told me. "I know a jeweler who can regulate anything. It ain't doin' you no good that way." He seemed pleased that my expensive toy was out of whack-and I couldn't blame him much. I thanked him and gave it to him.

He heard me out when I told him what had happened. But when I came to the hobo's cross on the rock he shook his head. "Dammit," he said peevishly, "that's one of the items that's got us
knockin' our heads together. Plenty of tramps and hobos do get handouts and walk away happy. But some of them don't."
"It looks like I'm not one of the elite," I told him.

He just grunted and said, "Yo're doin' okay, mister."
"So far," I said. I'd made a date with Amanda for the following night, but I didn't see any point in telling Jarvis. After all, he was the guy who had put me on the case. We made a date to meet Tuesday night. He took the Ingersoll off his wrist and gave it to me. "Maybe this will help you be on time," he told me.

I had to take it. He drove me back close to Happy Rest and I acted the part of the slap-happy tourist for a while, then rolled on up to bed and a hot miserable night on my lumpy mattress.

I'd been passing the word around that I'd been lucky at the races "Up Nawth," just to make my masquerade look solid. So the next day a couple of the characters that hung around Happy Rest drove me out to a racetrack on the edge of the city. I crossed my fingers and hoped Mrs. Ogilvie's expense account would take the lacing it was about to get.

I bet blind on the second race, just on the looks of a chestnut filly in the paddock, and my pals said I was crazy. But the goat came in to place, and I got thirty-six for a double sawbuck. I dropped all of that in the next three sprints. Then, in the sixth, I spotted a nag I'd seen win under wraps up at Narragansett a year or so earlier while I was following an embezzler in Providence.

His owner must have been keeping him under wraps, or else the horse had been unlucky, because the odds were fat. So I plunged with another double saw and came out of it sixty-three bucks ahead. By this time my pals believed in my luck, if they'd ever doubted it. I dropped ten on the last race and that was that.

0N THE ride back from the track I looked over a paper-and at the bottom of an inside page spotted a paragraph about an unemployed stenographer, who had been missing for a week. On the side, it said, she had been a female shot-putter. The idea of anyone making off with a she-Tarzan like that hit me funny-or maybe funny wasn't the word. Somehow I knew this was another of Jarvis's headaches-and mine.

For some reason this scared me. I decided I was going to wrap up my own little case and get the hell back to New York before I got wrapped up in something a lot worse. By this time, I figured, I had Amanda pretty well sewed up. It was time to level with her and get her to help me find something that would mark her mistress's Brett Fearing as Philip Ogilvie. If I turned up evidence that would get Jarvis his warrant, okay. If not, he could whistle for it.

That night a fine rain was falling that made everything seem remote and unreal. But Amanda was real-sitting on the edge of my bed, smoking a cigarette. I said, not bothering with preliminaries, "Honey, I need your help. I got to get something to prove this Brett Fearing is a Mr. Ogilvie from New York. His wife's got me after him."

I didn't mean to frighten the kidhell, she'd been much too nice to me for that-but apparently I scared her right out of her olive-brown skin. She jumped, and the bottle of corn liquor slipped from her hot little fist. She made a grab for it, just as it hit the edge of the washstand and broke. Result-one of the nastiest gashes I ever saw, between her right thumb and forefinger.

If it had happened to me I'd have yelped. But she never let out a peep. It bled like the devil but I had some firstaid stuff sent up and we managed to get it staunched and taped. But it ended the fun and games for the evening. I walked her home through the rain.

When I kissed her good-night I said,
"Baby, I'm sorry I scared you-but what the hell, I'm just a guy who happens to be a detective."

She looked at me steadily and even in the dark of that dark night I thought I could read the appraisal in her eyes. She said, "I-it's okay, Dirk. I'm just sorry you felt you had to keep it from me."
"Gee, you're a honey," I told her. "Then you'll help me?"
"Of course," she said quietly. "Tomorrow night. Meet me at the gateabout nine-thirty. The family's going out after dinner."

I decided Jarvis could do the waiting this time while I washed up the case. I kissed her and said, "How's the handhurt much ?"
"Not at all," she said as if she was surprised at my asking.

I wondered about that on the way home. Either she was the toughest woman I'd ever met or she had leprosy and couldn't feel it. Yet she hadn't sounded as if she was concealing pain, and I was pretty damn sure there was nothing wrong with her physically. I finally gave it up and crawted onto the chain mail of my mattress.

The next afternoon I was sitting in the bar when Jarvis walked in and had a drink. He didn't even look at me, so I gave him no sign. But while he was drinking I got up and went out for a walk. I hadn't gone a quarter of a mile when he pulled up alongside and told me to get in his car.

I said, "What is it this time-that female shot-putter?"
"You saw that? We killed it in the later editions."
"I saw it," I told him.
"That's just part of it," he said. "We've had two others-a bum and a former ballplayer down on his luck. All of them were last seen somewhere in this vicinity.
"Why don't you raid the place?" I asked him.

He shook his head. "Not a chance," he said. "How about you?"

SO I had to tell him about my date for the evening. He listened and scowled and kept on driving for a while. Finally he said, "Dirk, I don't like it. You seem like a nice guy and I wouldn't want to be responsible if anythin' went wrong."

I said, "Well, if anything does, you can get a search warrant over my dead body."
"If we can find it," he replied, and I stopped being flippant. He added, "Now, give me the pitch again, real slow."

So I gave it to him again. He stopped the car and reached in the dashboard. Before he pulled anything out he said, "You got a gun ?"

I shook my head. "Not on this job," I told him.
"I'd give you one if I thought it would do any good," he told me. "I got a hunch this will do better. Keep the thong around your wrist and keep it out of sight."
"Grandma knows how to suck eggs," I told him.
"If you ain't out of there by ten o'clock we're comin' in," he said. "And if you ain't in some sort of mess, we'll have to pinch you as a house breaker. Don't fret over it-it ain't for real."
"Better not be," I told him. "Thanks." I took the slingshot he handed me and slapped it against my palm. It stung satisfactorily. Then he gave me back my wristwatch and I handed him back his Ingersoll.
"Let's hope that fancy item of yours keeps the right time tonight," he told me. "You don't want to be too early."

Then he drove me back to Happy Rest.

Somehow I hadn't been able to take my lieutenant friend's warnings too seriously until Amanda opened the service door of the mansion for us that evening. Then I happened to look at her right thumb. There wasn't even a mark where she had cut herself the night before.

I said, "Hey, are you twins or something?"

She followed my gesture, made a
quick move to put her hand behind her, then said, laughing a little, "Oh, I have quick-sealing skin, honey-I told you not to worry about it."

She led me back into the sitting room off the kitchen and told me to wait while she made sure the coast was clear. Again I got that weird feeling of being watched. I waited about five minutes, then got out of there and went back through the huge kitchen. I opened a door on the other side and went through a pantry into an immense dining room with a crystal chandelier.

The further door was open, leading into a hall about twenty feet high. poked my head into it and listened. I heard voices from up above, then the opening of a door. Before it was shut I heard the most horrible moaning gurgling wail I've ever had to listen to in my life. The sound froze me and I knew I wasn't playing any fun game. Whatever was going on, it was for real.

Amanda must have been somewhere else. Anyway, the first thing I knew she was behind me, saying, "Thanks for saving me the trouble, honey. Go right on upstairs."

I didn't know what sort of weapon she was jabbing into the small of my back_but I was in no mood to risk finding out. Not after her self-sealing skin, those disappearances-and that scream. All I was wishing was that Jarvis and his myrmidons would arrive in a hurry.
"Maybe I shouldn't have told you who I was," I said, just to pass the time of day. We were climbing a magnificent circular staircase whose beauties evaded me at the moment.
"It wouldn't have made any difference, honey," she told me in matter-of-fact tones. "Your report came in yesterday —we want you."
"For what?" I asked her and wished I hadn't.
"You'll find out soon enough," she told me. It was hardly reassuring. But she jabbed that thing in my back and I had to keep on climbing those stairs.

AT THE top of the staircase Amanda said, "Turn left-through the first door, Dirk honey."

That "honey" made me a little bitter, but I obeyed-and walked not into a reconstructed bedroom of the Old South but a gleaming white enamel and chromium laboratory that any New York hospital would have envied. There was only one item to spoil its spotless appearance-a thin trickle of bright red fresh blood that had flowed under a metal door that led to a room in the rear of the mansion. I thought of the ghastly gurgling scream I had heard and felt my stomach turn over.
"Evening, Williams," said the tall half-handsome young man who was facing me. "I understand you've been looking for me." He was wearing a regulation surgeon's white jacket and could have passed for a movie-goer's idea of what a surgeon should look like.
"Yeah," I said, "your wife was worried about you."
"That old hag!" said a husky Southern voice with contempt. I saw the woman sitting in the chair to one síde for the first time. She was one of those lean, aristocratic Creole-type dames with her black hair pulled down sleek from a part in the middle and coiled into a bun over each ear. Her eyes were light blue and glittered as they surveyed me. She was smoking a cigarette and wearing a long white frock-of some strange, opalescent fabric.
"You have no cause for complaint, Jeanne," said Ogilvie quietly. I knew then that this was the redoubtable Jeanne Morley Dulac-also that she must be utterly mad-or sane in a way that would have no meaning for me.
"This isn't going to hurt," OgilvieFearing informed me as he began pouring some sort of milky dosage into a glass. "The whole experiment will last only a little while."
"What experiment?" I flared with a weak show of indignation.

He shrugged, and his eyes moved toward Mrs. Dulac. Then he came toward
me and held out the glass. "Drink it," he said. "Then you'll have to be very still for a few minutes."

I drank it. It didn't taste like anything much. Under Amanda's prodding I sat down on a chair. "Dr." Ogilvie muttered something to Amanda in a tongue I could not understand, then strode slowly from the room. Jeanne Dulac, after studying me with a fierce speculation that chilled my bones, got up and moved to the door through which crimson fluid still flowed.
"I'll wait in here till you have him ready," she said and opened it.

I couldn't have got out of my chair then if I'd wanted to. What I saw through that opened door made me think of an abbatoir. A girl was hung from a hook like a side of beef-a girl whose arms and legs had been hacked off. A girl who couldn't possibly be alive-but who was alive. A gag had been stuffed in her mouth to stifle her screams, but there was no mistaking the live anguish in the glaring eyes she turned in my direction.

I looked up at Amanda, who was studying my reactions with a sort of clinical detachment. I looked at the pistol in her hand and braced myself for a leap. Being shot would be a hell of a lot better than going through what that poor female shot-putter had suffered.

Amanda read my intention. She said, "I wouldn't, Dirk honey. The kind of bullets this gun shoots wouldn't kill you. But they're a lot more painful than the kind that would."

Somehow I couldn't doubt her. I forced myself to sit still. And I said, "What have I gotten myself into, anyway ?"
"Call it an experiment, honey," she informed me. Then, with a little glow of proprietary pride, "I knew you could make it, even before we got the reports on your first examination."
"Make that?" I asked her, nodding toward the closed door.

She shrugged, said, "Oh—that. What we're going to do to you won't hurt you
a bit. In fact, for a few minutes after you get the injection, you're going to be practically immortal."
"It hardly seems worthwhile if it doesn't last," I told her. I could feel cold sweat streaming under my clothes.

SHE laughed-the little devil actually laughed. She said, "Well, we couldn't very well leave our successful experiments walking around loose, could we, honey? It might make all sorts of trouble on this world of yours. It might even lead to our discovery."

That took a little while to sink in. Then I got it. I asked, "Where are you from, Amanda-you and Ogilvie?"
"From a world like this one-but not quite," she told me. "Our universes are co-existent. Occasionally, at intervals that are regular in our time, but not so regular in yours, we can cross over. That is the basis of our experiment. We must come here because, in our world, your reactions are not the same."
"But why?" I asked her. "What are you after?"
"The same thing you people are after," she said, and her use of the word "people" had the patronage of a rich banker for his depositors. She added, "A longer life span."

I was trying to keep my mind off the other room and concentrate on what Amanda was telling me. I thought of Philip Ogilvie, who never seemed to age -at least not in twenty-seven years. I looked at Amanda and thought of her eyes and wondered how old she actually was.

I said, "Why, since you people'seem to live almost forever."
"Maybe it looks that way to you," she replied with something like contempt. "But remember, to us you are like winged ants-like fruit flies."
"So our lives are of no importance," I said.
"How can they be?" she countered. "You don't live long enough to accomplish anything. You don't live long enough to learn anything."

I nodded in the direction of the closed door. "What about Jeanne Dulac?"

Amanda studied me almost with pity. Finally she said, "We must have a place to operate while our worlds are in conjunction. We need protection for our experiments. Can you think of a better way to get it, honey than to bribe a money-mad, man-hungry woman?"

The "honey" after that cold-blooded confession made me writhe. I looked at my watch and my heart leapt with sudden hope. It was already past ten o'clock. I could see the logic of the arrangement, all right. These-these whatever they were needed some protection. Not being human-or rather since we were not human to them-they went about it with systematic coolness.

Probably they had paid Jeanne Dulac to get rid of her husband, and bribed her to let them use the protection of her house and name. In return they catered to her own, more temporal, appetites.

I said, "Why pick on me?"
She told me, "Because you're so strong. We get better results from our tests by using the strongest men and women we can find. Unfortunately, we can seldom obtain as sound a specimen as you, honey. I knew you would pass as soon as I saw you. That's why I brought you to the house and had you microed last Sunday."

I thought back to the time she'd left me alone in the sitting room off the kitchen, to the feeling I'd had then of being watched. I remembered the odd click I'd heard when she came back with the tray. And I remembered what had happened to my watch.

While I was in that room downstairs I must have been enclosed in a chamber of their time. Probably, to them, it had lasted a mere second or two-but in our time it had gone on for twenty-one minutes! I glanced at my wristwatch again -it read twelve minutes past ten--but my hopes of rescue faded, and so did my stomach.
"How long has this experiment been going on ?" I asked her.

She shrugged, told me, "It's hard to tell by your time, honey. But I'd say hundreds of your years."

I felt cold chills gallop up my spine and set my teeth on edge. İ said, "Doesn't what you and I've been to each other mean a damned thing to you, Amanda?"

She looked at me with open contempt and said, "You were using me-I was using you. Why should it?"

PHILIP OGILVIE came back into the room then before I could think of any more to say. He was using both hands to prepare an odd-looking hypodermic needle. He lifted an eyebrow at Amanda, who said, "No trouble, Brett. He's been a real woolly lamb."

Her tone and words chilled me almost more than what lay ahead of me in the next room. But I didn't have much time for wonder. Ogilvie said, "Take off your jacket, Williams, and roll up your left sleeve."
This was a break. Apparently Ogilvie wanted the injection to be on the side of my heart. The slingshot Jarvis had given me was tied to my right wrist. I might not have any real chance, I thought, but if I could just land one solid wallop I'd feel a lot better. I obeyed orders slowly, seeking the right moment to move.

It came just as Ogilvie focussed his attention on jabbing the needle into my arm. I saw Amanda's eyes wher, and I lifted my right arm and swung, letting the slingshot drop into my fingers as I did so.

I felt the needle enter my flesh, then the satisfying thock as the weighted leather smashed into the thin part of his skull, just above and in front of his left ear. I heard Amanda scream faintly and then felt a paralyzing shock pervade my whole body as she fired her pistol. I couldn't move, and the pain grew worse and worse until mercifully I blacked out. The last thing I remember was the needle still sticking into the inside of my left elbow.. . .

Jarvis Williams said the damned thing was still sticking into me when they
pulled me out of the burning mansionincidentally I was the only one they did pull out alive.

They found Ogilvie-Fearing and Jeanne Dulac and some others about whom the less said the better. The whole thing was hushed up, naturally. Ogilvie hadn't died in the blaze-apparently my wild swipe with the slingshot had crushed his left temple like an eggshell.

But they didn't find a trace of Amanda Lopez-and there wasn't any doubt but that the fire was set. Funny thing was-my watch was out of phase again.

I went back and made my report to Mrs. Ogilvie, giving the official version. On the whole, she seemed relieved. In the back of her shrewd mind she must have known something was wrong-and not dared to guess what. She moved out of New York a few months later and spent the rest of her life in Nyack.

Well, that was twenty years ago. I hung around the office, doing this and sundry for a couple of years. Then one day when I was riding the subway I
caught a glimpse of Amanda. She was sitting between a fat woman with bundles and a man reading a newspaper. I came in through the door and saw her sitting there, looking like a demure little girl whose figure had developed too fast.

She looked up and our eyes met-and I ducked back through the doors just as they slid shut. She started up toward me but not quite in time.

I went back to the office and collected what dough I had coming and got the hell out of town. I went elsewhere and changed my name and managed to spread the little dough I had in a few of the right places. I did all right.

Well, that mess down South happened almost exactly twenty years ago. I was just thirty at the time. I got through the Second World War okay, and I've managed to rack up quite a pile. But I've never been able to marry.

You see, I wouldn't want to put any woman through what Ogilvie put his wife-as far as looks go I'm still thirty today. And there's always Amanda.

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## He Made a Discovery in Time Which Nobody



F
ROM beginning to end, it was Pete Marshall's show. His show, and the knife's.

Marshall had a big reputation as an archaeologist, and there's no question but that he'd earned it. But the knife ruined him professionally. You see, he'd worked out his own system for spotting digs, and for a time he was the fairhaired boy of American archaeology.

He pointed out that cities and settle-

## DEAD

## Complete Novelet by

ments aren't located by chance, but for definite reasons-a harbor, trade-route, fertile ground or whatnot-and that surface remains aren't necessary to justify a dig. If a place should have been the

## Believed-but It Netted Him a Fortune!



## CITY

## Murray Leinster

site of a human settlement in ages past, it is worth while to dig it up to see. So Marshall dug.

After he'd located Aztec remains in a Kansas cornfield-a trading-post it was,
for the Aztec caravans of slaves and merchandise even Prescott knew about -and found those Tartar artifacts in California, Pete Marshall was pretty much of an authority.

But then he went down to Yucatan to see if he could locate traces of preMayan culture, and he came back with the knife.

The knife wasn't remarkable except that it had an odd handle. You can go down to a hardware store right now and published in Thrilling Wonder Stories for Summer, 1946
buy one almost exactly like it. A slightly different-shaped blade, perhaps, and the handle won't be at all the same, but practically the same thing in all essentials.

The knife Pete Marshall brought back from Yucatan was perfectly ordinary. But he swore that he'd found it twelve feet down in absolutely undisturbed strata, in the remnants of a primitive Indian culture of which there'd never been any previous sign. He brought back broken pottery and various oddments, which did seem to establish a culture of sorts- more primitive than anything previously found south of the Aleutians, however-but that knife messed everything up.

It was a steel knife. Moreover, it was a stainless steel knife, and Marshall claimed it was at least eight thousand years old, and, he believed, more. But you don't have to know archaeology to realize that people weren't using steel knives eight thousand years ago, much less stainless steel ones.

It was absurd. . . .
But Marshall went to bat for the authenticity of his find. He staked his reputation on it. And he lost. The directors of the Museum of Comparative Anthropology tried to argue him out of his claims. He lost his temper and called them a pack of fools. They said, in pained language, that they accepted his resignation.

Truculently he asked what about the knife, and they said that he might as well take it away because, if they wanted stainless steel knives, they didn't have to fit out expeditions to get them. They could be bought in any modern department store.

MARSHALL put the knife in his pocket and marched out. Then he went to a chemical firm and had a bit of it analyzed, and he patented the composition.

Because, you see, the knife was eight thousand years old-a good bit older, as it turned out-and it was as bright as
the day it was made. Modern stainless steel just isn't that good. So the corporation that was formed to make the new steel is pretty prosperous, turning out precision instruments and physical standards and the sort of stuff that they used to have to use osmiridium for.

That steel is special!
But Marshall was ruined professionally, just the same. When you compared the knife with the primitive pottery and chipped flints Marshall claimed to have found with it, it didn't make sense! Still, he got moderately rich out of his patent on the new stainless steel alloy, and then sank most of the money in a new, select expedition to go back to Yucatan and hunt for some more.

He took just two other men with him, Bill Apsley and Jeff Burroughs, but they were good. Burroughs, in his stolid fashion, knew as much about primitive man as anybody else in America. Apsley wasn't so much of a specialist, but he had an intuitive way of seeing through archaeological problems that had made sense out of nonsense before. In his fashion, he was brilliant.

The three of them sailed with a lot of very special apparatus, and unloaded at a tiny port in Yucatan where Marshall set to work. He had a genius for organization. He had a mule-train hired and loaded, and had a gang of flat-faced peons hired out because they'd ride to their work on mules. The mule-train went swinging off into a jungle-trail only five days after the expedition's stuff came ashore.

The three white men and their gang spent four days reaching the place where Marshall claimed he'd found the knife. His trenches were half-way filled in and already overgrown with jungle-stuff.

His gang cleaned them out in a hurry and they spent two weeks doing more work. Marshall set off a neat blast of explosives, blew a sweet crater in the ground and started a new trench from that. Crazy? Not at all. As the trench was dug, dirt wasn't hauled out of it. It was simply trundled to the crater and
piled up, filling it.
That way it wasn't hauled aboveground and the peons considered that they weren't really working. What they hate is pushing loaded wheelbarrows up inclined planes. Marshall had rubbertired wheelbarrows for them, by the way, for their psychological effect. He got more work done with less trouble than anybody else in Central America.

0F COURSE he wasn't digging up a whole city area. He was looking for something, not uncovering a site. And he found what he was looking for. Or rather, he didn't find what he didn't ex-
traces in the culture of later peoples. And Apsley said fiatly that eight thousand years were much too low an estimate of the culture-age. He put it much farther back, about contemporary with the Cro-Magnons of Europe, which was twenty to twenty-five thousand years ago.
"Hm," said Marshall, when the job was finished. "I didn't think we'd find any more knives. The one I found was either traded in or looted. There's absolutely no sign that these pre-Mayans could have come anywhere near making it."
"No-o-o," said Apsley. "They couldn't.

## How Parables Are Boin


#### Abstract

ATHEORY is an explanation designed to fit certain observed facts. Having once established a theory its sponsor is apt to fall in love with it and become disturbed when subsequently observed facts begin to punch it full of holes. Then comes the struggle as to whether the theory is amended or discarded, or the facts are juggled to make them continue to fit. You might call this a back-handed definition of the difference between totalitarianism and democracy; that in any system where certain precepts have been ballyhooed as eternal truths, disagreeable facts must be distorted or suppressed, while in a free system, facts must be welcomed.

There were certain unbelievable facts confronting Mr. Leinster's explorers in DEAD CITY which started the whole thing and if you try hard enough you can always make a parable of it.


## -The Editor

pect to find. He didn't find any more knives.

The remains of the ancient settlement were there, all right, and the expedition breezed through them. Artifacts were photographed in situ, uncovered, and packed. Ashes were picked over, dirt sifted, everything neatly catalogued, and on again with the trench.

It was archaeology in high gear, and at the end of it Apsley and Burroughs were pleased and happy. They had materials for a fairly complete study of a pre-Mayan culture that had never even been guessed at before.

It seemed to have vanished without

Do you still insist you found that knife here?"

Marshall nodded without resentment.
"I always figured that it came from somewhere else," he said. "So I had some air-photo topographic maps made of all the country for a long way around. They cost like the devil! Figuring that ancient savages were as lazy as their descendants, I've traced out just about the most probable line either trading or looting-parties from here would travel on. We break camp tomorrow."

That expedition moved like clockwork. One group of muleteers headed back to the coast with pack-mules loaded with
artifacts from this first site. They'd get more supplies and come on to the next dig. The others would be already working on it. Marshall was systematic. Efficient. He knew what he was doing.

They followed jungle trails for three days, cutting some of them for themselves. On the way Marshall looked over the ground as well as anybody could in jungle country, and shook his head. Then he stopped and got out the induction balances. You know what they are. These had been made to locate landmines and dud shells in the war, and he'd stepped them up to make them really sensitive. This was their first use in archaeology.

He spent a half-day fussing with them, with workmen cutting paths for him with their machetes. Then he set men to wörk digging three wells. He said they were wells, but they weren't.

N
INE feet down in one hole, twelve in another, and only seven in a third, they found more steel knives-with pottery and stone arrow-heads. Apsley and Burroughs unearthed them in person at the bottoms of the three holes. The earth was absolutely undisturbed, and they were mixed with ashes and crude pots and stone axes and such stuff. They were just as bright and shining as if they'd been taken off a hardware store shelf that morning. That stainless steel is a very good alloy!
"All of them identical," said Marshall meditatively when the last was up. "Mass production. Apsley says twenty thousand years ago! More of them here than farther east. We'll keep going west."
"Listen, Marshall," Burroughs said rather helplessly. "I dug one of those knives out of the ground myself. And I know it's been there all along. But I still don't believe it! What do you expect to find?"
"Where they were made," Marshall said.

Burroughs knew his primitive man.
"But look," he said helplessly. "With
metal like that, a race would have an enormous advantage over fiint-and-pottery tribes. They couldn't be wiped out. How could an art like that be lost? You know and I know that there simply aren't any lost arts."

Marshall was spreading out his airmosaic photographic maps. He whistled a little, soundlessly.
"I've been called all sorts of names about that first knife. If I told you, even now, what I think, you'd take me back to the coast to a doctor. Have you tried to use one?"

Burroughs picked up a knife, and Apsley another. They puttered with them while Marshall went over his maps. All around them was the camp of the peons, who had been paid well for something over five weeks, and had only worked-so they considered-for about two. A very cheerful place, that camp. There was jungle all about, but with insecticide bombs and various gadgets that came out of the war to make jungle fighting possible, jungle camping wasn't bad at all.
"Mighty unhandy, these knives," Apsley said, presently. "How would you hold 'em?"

Burroughs swallowed.
"Marshall!" he said. "They don't fit my hands. There isn't any sense to it."
"I know," said Marshall. "There isn't. Look-I'm going to head for this place. It's over a hundred miles away and the going will be rough. But if there was ever a spot designed for a city site inland, that would be it. I'm going to take a chance and go straight there."

HE WENT away to talk to the brownskinned man who bossed his labor force. He had forty Indian workmen who were eating high, loafing plenty, and getting paid for it. They thought Marshall was a cross between a wacky fool and Santa Claus.

Presently Marshall came back to where Apsley and Burroughs sat staring at each other.
"Marshall!" said Burroughs. "These
knives weren't designed for people to use. What do you suppose they were? Ceremonial?"
"You guess," said Marshall. "My guess is crazy."
"They're awkward to hold," Burroughs insisted. "Hang it, you can't get a real grip on them. And your primitive man may have been ignorant, but he was a practical cuss. He wouldn't make knives like this."
"No," Marshall agreed. "Primitive man wouldn't."
"He couldn't, if he was primitive," put in Apsley. "And, primitive or civilized, men simply wouldn't make knives with handles that were so unhandy to hold. But here they are."
"Yes," said Marshall. "That's the question that bothers me."

Burroughs and Apsley both stared blankly at him.
"I don't get it," Burroughs complained.
"The metal is wrong," Marshall explained. "Men back in those days didn't know how to make steel, especially stainless steel, and still more especially a better alloy than we've worked out for ourselves. But the handles are even more wrong. Men wouldn't have made knives like these even if they could. So the question is, who-or what-did make them? And what happened to a civilization with that much of a headstart over our ancestors?"

Shamefaced, the other white men looked at each other. Archaeology isn't a very practical science, perhaps, but there's a lot of hard common sense used in it.
"Let's forget it," Apsley said irritably, after an instant's glance. "Or we'll all go crazy wondering. The thing to do is find out just where these knives come from."
"Yes," said Marshall. "I made quite a lot of money out of that first knife, but I'm willing to spend it all to find that out. And somehow I'm afraid I'm not exactly going to like what it is I do find."

## II

IT TOOK over a week to get to the place Marshall had picked out as a perfect site for an inland city. On the way they were all pretty tactful. They didn't mention the knives a single time. They talked about the scenery-which was all lush jungle and thoroughly monoto-nous-and about the grub which was adequate but abominably cooked.

Sometimes they discussed archaeology. But they never talked about the three knives. They had plenty of time to dodge the subject, too.

It was a little over a hundred miles airline to their destination, but they had to go roundabout. They would never have found it but for the air-maps.

At last, though, they came out into a valley with a lake in it. It was a curious sort of lake. It was almost exactly circular, and was bordered with a stretch of savannah-grass growing where the lake level apparently rose and fell with the seasons.

The valley opened out on a level plain ten miles across-cleared, it would have been perfect agricultural country-and then all the ground got tumbled again and there were mountains in every direction.

In the days before airplanes, it would have been beautifully isolated. A city or even a civilization could grow up there and last for a thousand years without anybody from the outer world having any reason to enter it. As a matter of fact, Marshall and the others never did find any direct evidence that human beings had ever been there before. But the indirect evidence was upsetting.

The valley was plain jungle. There were no pyramids or impressive ruins in view. But Marshall hadn't expected them. He relied on his induction balances. As they descended into the valley he had some good looks over the jungletop and his expression was satisfied. They made camp near a small stream a half-hour before sundown. Apsley saw Marshall's look of contentment.
"You think there's something here?"
Marshall nodded.
"This sort of jungle usually grows pretty even on top," he observed. "Here there are some places where it humps up. I think we've got a real find."

Apsley hesitated a moment. "Marshall, I hope we don't find anything!" he said.
"I'll bet," said Marshall, "that I can find indications with an induction balance before sundown."

That would be less than half an hour. Apsley didn't answer. He meant it when he said he hoped they wouldn't find anything. The handle of a knife can mean a lot to a trained archaeologist. The handles on those stainless-steel knives were-not right.

But Marshall got out an induction balance, checked the dry-cell batteries, and put on the headphones. He swung the thing about a couple of times and then moved cautiously through the thick growth around the space his men were clearing even then.

All of a sudden the headphones nearly deafened him.

He jerked them off and rubbed his ears.
"I got it!" he said. "Right there."

HE POINTED. There was a monstrous hardwood tree where he pointed. It had huge, thick, gnarled roots, and above where one of the roots went underground there was a sort of mound, as if the root were lifting a rock as it swelled. The mound dripped vines, and things grew out of it, but-there's a sixth sense that comes to a man who's done a lot of digging.
"Just for the devil of it, I'm going to see what that is," said Marshall. "It's near the surface, anyhow. Send a couple of men over here with spades, won't you?"

Apsley went back. He was a little bit pale. He sent a couple of the peons over with shovels which they hauled off a mule-pack. Marshall was already poking at the mass. Things were crawling and
squirming and popping out of the tangled root-stuff. You never know how many living things there are until you start poking around in a tropical jungle. Marshall grabbed one of the shovels and thrust in a couple of times, and there came a ring of metal.

Marshall kept his head, of course. He didn't interfere with the making of camp. But he had flares burning around that thing after sundown, and a dozen men working at it. Then he put the whole gang on the job and moved it to the cleared space. Then he and Apsley and Burroughs looked at it.

But it wasn't like anything any archaeologist had ever dug up before. It was what you might call a vehicle of some sort. It was not too large, maybe seven feet long and four feet wide. It didn't have wheels. It had something that might have been a caterpillar tread, only there had been other metals than stainless steel built into that part of it, and they were gone in crumbled masses of corrosion.

Most of the bottom had been left underground when the vehicle was heaved up. After all, it had been buried a good many thousand years. Twenty thousand of them, by Apsley's estimate. And at that period there wasn't any human civilization, which made the thing even more disturbing.
"I think that we are now faced with the question," Marshall said.

Burroughs knew primitive man, but he stared at that thing helplessly.
"It's an artifact, but its purpose is beyond me," he said dubiously.

Apsley looked sick.
"I have a feeling that we'd better get away from here," he said slowly.

Marshall glanced at him.
"I mean it," said Apsley. He looked wretched. "I-have hunches sometimes. I guess you'd call this a hunch. Once I felt this way about a monolith in Petra. The cursed thing had been standing for a couple of thousand years. But I had a feeling that it ought to be kept away from. I was ashamed to say any-
thing about it. One day it crumbled and crushed two Arab workmen. I've got a feeling that there's something wrong here. That we'd better get away. If I could, I'd strike camp and leave tonight. I don't know why. I just feel that way!"

Marshall nodded.
"It does feel creepy to look at this contrivance. I suppose you might as well call it an automobile. You notice it has two seats."
"But it can't be an automobile," Burroughs said indignantly. "Other plain facts aside, it's too small."
"For human beings, yes," Marshall said.

BURROUGHS swallowed with a sort of clicking noise. Apsley and he had carefully skirted that point in their own minds. The knife-handles had been wrong. Now there was this thing, which was a vehicle, with two queerly-shaped places in it that could only be seats. But not seats designed for human beings. And not conceivably for human adults.

The three white men were very still for a while. Then they elaborately got to work. No engine was visible, and they looked for it. They found only corrosion, and no gears or cylinders or any trace of them. Presently Marshall. pointed out bits of greenish-colored rust that still clung to a bright-metal shaft. Apsley was staring at something else about the thing, then.
"This might be the motor, or one of them," Marshall said. "Anybody who could make an alloy that would stay bright underground all this time would be past using gears. He'd put motors wherever he needed power."
"That is a guess, but it is no guess that this is not primitive," Burroughs said stolidly.
"Hardly," said Marshall. "You can't say primitive after you look at these decorations."

Apsley retched, suddenly. The others felt like doing the same thing. Because -have you ever looked at those "optical
illusions" that are sometimes printed in believe-it-or-not newspaper features?

You look at them, and now they look this way, and now they look that way, and you wind up with your eyes dazed because you can't decide which way they're supposed to look.

The decorations cast in the bright metal of this thing were something like that. Only instead of making your eyes hurt they did something else to you. The lines and masses were distinct. Horribly so. And you tried to find a meaning in them, and you wound up with an inchoate mass of emotional impressions of which you were partly ashamed, and part of which nauseated you.
"I don't think that human beings are responsible for this art-work," Marshall said judicially. "After all, there is an inherent decency in the human race, however often we doubt it. Also, when we set out to be nasty it's usually a matter of simple nastinesses. We don't often blend them."

Burroughs snorted disdainfully. "It's not primitive," he repeated unnecessarily. "It's a sort of art, and it's highly civilized. Primitive painting is simple and representative. There's no attempt at heightening the effect of one color by the use of another. Primitive music is simple, too. It's your civilized man who mixes colors and sounds for more urgent effects. This stuff is-well-emotional, as all art is. But this has mixed up things that suggest all the most violent and unpleasant emotions possible, and they're blended so that they gain force by contrast with each other. It's a high stage of art, but it's not to human taste. The-creatures who liked this wouldn't be nice company."

Marshall's voice took on a shade of grimness.
"Anyhow they're all dead. And one of their knives was important to our civilization. There's more stuff around that might be important, too."
"I still feel that hunch that we'd be better off away from this place," Apsley said sickishly. "There's no sense to it,
but I feel it strongly."
Marshall looked thoughtful. After all, a man who's spent years digging up things that dead men left behind realizes that there are feelings and feelings. Your experienced archaeologist is a hard-headed man, and a severely practical one, but there are limits to his incredulity. Looking at Apsley's face and knowing what he did of him, Marshall didn't dismiss the hunch utterly. It was a fact. As a fact, it should be weighed in.
"We'll go to sleep," he said after cogitation. "I'll post a couple of sentries, just in case, and we'll get to work in the morning. It's hard to understand how a civilization as far advanced as this one could have died out without leaving a trace!"

DURING the night all three of the white men awoke abruptly. There was a queer throbbing in the air. It wasn't a sound. It wasn't a vibration of the earth. It was a sort of pulsation just below the lowest note that the human ear can catch.

Pete Marshall got up and went out of the tent.

There was a fire burning and two of the peons were playing some mysterious game with things that looked like dice but weren't. They were the sentries, watching-so they considered-against animals who might raid the mule-corral or the supplies.
"Un temblor, senor," one of them said tranquilly. "Pero un poquito."

An earthquake, but a little one.
Marshall knew it wasn't so, but he said notihng. The pulsation died gradually away. ${ }^{\circ}$ He went back into his tent.

All three of the white men lay awake. They could hear the two peons talking over their game. Speaking to the white men they used fairly intelligible Spanish, but among themselves they used a mixture of Spanish with the remnants of a vocabulary that was pure Maya.

They were quite amiable about their play. One in particular was cracking
jokes and chuckling over his own witticisms, poor devil.

Marshall rather envied them their peace of mind. Apsley's hunch worried him. He almost shared it. That artwork! But when a civilization has been dead for twenty thousand years, it's dead! It can't be dangerous! Still-well -it wasn't a pleasant thing to think about.

While the three Americans were at breakfast, the pulsation came again. Apsley noticed it first. You couldn't hear it. You felt it, mostly in your chest. It grew louder and louder-no "louder" isn't the word: It grew stronger, with a swift rise to a peak of amplitude. Then it died as swiftly away again. That was all.
"Something new, there," Marshall said. "I wonder."

Neither Burroughs nor Apsley made any comment. There simply wasn't anything to say. Marshall concentrated on the problem.
"Here"" he said abruptly. "Counting in everything, including your hunch, Apsley, I've come to a conclusion that hurts. We're archaeologists, and that's all. We've a smattering of the other things archaeology calls for, but no more. If the thing we found last night is an automobile of sorts, it needs a specialist to work on it. We can handle rotted fabrics and such things, with paraffin, and I've even done a little with the electrolytic restoration of corroded objects. But I wouldn't know how to set about preserving or restoring a complicated piece of machinery that had been buried for twenty thousand years. There's never been anything like this before. So I think we'd better go back and get some really good men on this job."

Apsley drew a deep breath. But Burroughs objected, frowning.
"That's a rather drastic decision to make on one artifact!"
"It's a rather drastic artifact," Marshall said drily. "I took a knife, and made what they tell me will be a prac-
tically new industry. Here's an automobile or a reasonably distorted facsimile of one. What will it do to our civilization? I suspect this place calls for a group of physicists with training in archaeology and jungle-camping."
"At least that," Apsley said quietly. "But we can't take this thing back. We wouldn't be believed any more than you were, photographs regardless."
"True enough," Marshall agreed. "So we'll take the induction balances and spread out, making a sort of map of any indications we find. If we find one place where the indications are especially promising, we'll make a complete dig of the one area. Or else we'll make a group of small digs until we get something convincing. In other words, we cut down our sights. We'll admit that we're only scouting. We won't try to do more than size up the job and prove it's worth doing. Right?"

Apsley's face was still strained.
"That's reasonable," he admitted. "It's sane. But I wish I felt it was enough. I've still got the hunch that we ought to get the devil away from here."

MARSHALL laughed, but he was not altogether at ease. Apsley wasn't a moody man. He was a quiet, levelheaded, and thoroughly capable field man. But some people do have hunches which are sound. You don't talk archaeological shop without hearing about hunches that worked out. And the decorations on the thing which the tree had lifted out of the ground, they were very, very upsetting. No one would enjoy looking at them very long.

Again the expedition went like clockwork. A camp party went on clearing a camping space, and three other gangs set out with Apsley and Burroughs and Marshall. Each of the three took an induction balance, which could be adjusted to register a dime ten feet underground. They spread out fanwise, machete-men going on ahead. But in an hour they were all together again, staring.
"I got indications in a practically
continuous line," Apsley said calmı. "There's as much metal underground here as there'd be if New York were buried under this jungle."
"I think my detector is out of order," Burroughs said irritably. "A primitive culture simply couldn't have this much metal! It's too much!"

Marshall's eyes were very queer.
"They used to measure the technical position of nations by the amount of sulphuric acid they used in industry," he said irrelevantly. "Nowadays it's been suggested that light metals would be a better index. But the only metal that would be metal after even eight thousand years-let alone that twenty Apsley estimates-would be that stainless steel the, er, inhabitants of this city knew how to make. By that test, these inhabitants had a culture as high as a modern one. What destroyed it? What could?"

Burroughs was bewildered, and indignant because he was bewildered. Apsley was very pale.
"It wasn't a human civilization," Apsley said suddenly. "I'm sure it wasn't. Marshall, I'm getting scared!"
"We could change our plans again," Marshall said slowly. "Grab up a few artifacts-we can get them quickly enough-and pull out of here in a hurry. We can't do a real job by ourselves, that's sure. We could try only to get evidence of the job that needs to be done."
"I'm not quite that scared," said Apsley. "But the sooner we're away from here the better I'll feel."
"We'll start from the lake," Marshall said decisively. "The city would surely front on that. We'll go around the lakeshore and find out if it was built up all around. Then spread out toward the perimeter. If it's as big as this concentration of metal would seem to imply, there'd be more metal in a dense population than in a small one. We can't even hope to map it. But maybe we can find out how big the city was."

So far they had seen one artifact. and
the rest was jungle. But they knew. Silently, they started off again. The lakeshore was half swampy. No trees grew there. Machetes were not needed to clear the way. It was, incredibly enough, absolutely without indication of metal. For a hundred yards beyond it, in the jungle, the detectors registered absolutely nothing. There would come small, sporadic indications. Then, abruptly, masses of metal in such quantities as would be turned up by detectors going over the very heart of a modern city which had been bombed to rubble and covered over with vegetation.
"D'you know," Marshall said that night, "when you consider this lakeI'd like to have soundings of it-the indications we get are just what we'd find if a whopping big city had been destroyed by, say, a single bomb of fifty or sixty thousand tons of TNT dropped in its middle! That would account for the lake and the absence of metal anywhere near it. The lake would be a bomb-crater. But what a bomb!"

There was a sudden throbbing in the air. It grew to a fierce intensity and there were cries from the peons in the encampment.
"Señores! Señores! Un aeroplano! Alla! Monstruoso!"

As the three white men came out into the sunset, the sensation of pulsations in the air suddenly diminished. And there were renewed cries from the peons.

They babbled excitedly. After all, they had seen airplanes many times. Not many parts of the world haven't. They were not alarmed. They described a huge, shining thing in mid-air over a place near the center of the lake. It was un aeroplano, but they had not seen its wings. And it had vanished like magic. It must have been traveling very fast indeed. . . .

Apsley was white as a sheet. But he set his teeth grimly and tried to discuss the apparition calmly. None of the three white men had even glimpsed
it, but all the peons had, and their descriptions tallied.

The discussion got nowhere at all.

## III

EARLY the next day they set to work upon a huge mound a good half-mile from the lake's edge. There was metal in it. Plenty of metal. They attacked an almost overhanging side of the mound and cut through five feet of matted climbers and three feet of mould. Then they struck stone.

They widened the face of their attack and reached a doorway, choked with mould and the roots that had grown inward through milleniums. The doorway was four feet high. Six feet in they came upon emptiness, a choking, fetid open space filled with the rank smell of corruption twice corrupt.

Marshall, gagging, set a charge of powder to burn inside. It would leave a sulphurous reek, but at least it would drive out the stench of ages.

In an hour they were able to go in. Two men came back from the camp with a sixty-pound portable generator and strings of wire and lights. Things slithered away from the lights before the advance of the men who found themselves in a huge room, completely intact after thousands of years.

On the walls were panels of bright stainless steel. There were heaps of greenish oxide here and there, interspersed with dark-gray powder. There was a hole in the roof of this room, and emptiness above it, under which was another heap of rust and fragments of the same bright steel.

No stairs were to be seen. There were other low doorways, leading to other rooms. Some of those, also, had openings which once had led to the outer air. They were choked with serpentine, clutching roots which fumbled inward in complete futility. Pete Marshall saw one patch where ceiling had fallen and bright metal showed through.
"My gosh!" he said. "Steel-frame con-
struction! Twenty thousand years ago! And what sort of concrete would last this long?"

He went on by himself. He vanished. The others looked about them.

There was a jabbering. The peons had gathered before a bright-steel panel on the wall. It depicted a human being, in exact anatomical accuracy. He strained in agony, and about the figure were more designs like those on the artifact of the night before.

They were not conventional and not stylized. They conveyed their meaning directly and without symbolism, as music conveys emotions without words. The designs conveyed emotions which, somehow, made a normal human being feel sick and ashamed.
"Subjective art," Apsley said in a queer tone. "They moulded their emotional sensations direct. My stars!"
"Interesting cranial index, Apsley," Burroughs said. "An Indian, of course. His skull-shape reminds me of the ones in the Aleutian digs. Blasted fine work! See, that sandal he's wearing looks like the remnants we found back there where Marshall picked up the first knife. Here's a contemporary portrait of a pre-Mayan of the culture we dug up." Then he asked abruptly, as if surprised :
"What's he afraid of?"

THE figure conveyed fear and terror in its pose. That was all. But the background-or was it the background -was composed of moulded designs which were not pictures of anything at all, but told much. The only possible analogy was to music.

As chords are grave or gay, melancholy or inspiriting, the indicated forms conveyed impressions. The figure alone might have been a man struggling against an unseen obstacle. The figure and those designs together gave the feeling of a human being in the grip of such terror and such unthinkable horrorhorror far past the fear of death-horror even beyond madness.

The peons chattered excitedly at first recognition of the figure as an Indian recognizably like themselves. But gradually the chattering stopped. They stared at the plaque as the background made its impact. One or two crossed themselves. They drew away from it, uneasily.
"There's another," said Apsley. "Hideous beasts!"

Burroughs, again, looked at this human figure from the standpoint of a student of primitive man. This figure was at bay with a stone axe. His antagonist or antagonists did not appear. Only the man, with abstract designs about him which uncannily conveyed the feeling of despair. And such despair! The peons murmured as they saw it.
"Quaint," Apsley said. "They made humans the subject of their art, or the occasion of it."

Somehow the bas-reliefs made certain that men had not made them. Burroughs was busily making notes.
"Remember 'Stag at Bay?" " he asked abruptly. "They might have enjoyed watching humans in emotional situations, as we like to watch animals!"

Apsley discovered a third plaque. It was indescribable. There were two figures, and the emotional effect would send throbbing rage through the veins of any man who looked at it.

Then Marshall came in through a doorway he had to stoop almost double to use. His expression was very strange indeed.
"You chaps come along," he said in an odd, choked voice. "I've something to show you." He spoke abruptly in Spanish to the crowding peons, ordering them to clear the entry place more thoroughly. He led off through the doorway he'd returned by. The others followed. Marshall turned on a flashlight and flung its beam before him. Something slithered out of the room.
"I-don't want them to see this," Marshall said jerkily. "There's a ramp here. Listen! This place was really
built! It hasn't collapsed. It's a ruin because the whole top part was shattered by something. Something like an explosion. The thing I've got to show you!"

He swallowed. They came to the ramp. It went up and up, with what might have been a handrail save that it was hardly more than a foot above the ramp level. The air was not wholly clear, here. The odor of incalculable age and dampness and fetor was all about. There was a musky smell. But Marshall led the archaeologists, flashing the light ahead and breathing quickly.
"It isn't possible!" he said feverishly. "When were the laws of perspective worked out? Fourteen hundred? Fifteen hundred? They simply didn't know how. Then somebody found out, and everybody knew. As soon as they'd seen it done once, they all knew how."

HE BENT low and almost crawled through an opening under the fourfoot height of the doorways on the lower level. He stood in darkness, swallowing noisily as the others joined him.
"This is going to be hard to take," he said thickly. "The implications are incredible. It explains why Apsley feels that we ought to get away. It explains everything! But it is going to be hard to take."

Then he turned on the flashlight again. There was a mass of glistening stainless steel, mirror-bright, utterly untarnished, only faintly dulled by a coating of impalpable dust.
"You'll see it better if you turn on your lights, too," he said hoarsely. "It will take a minute or two to get what it's all about. But it's not a machine. It's-art, maybe. It must have been made just to be looked at."

Two other flashlight beams came on. They played upon the intricate array of solidified abstract designs about a central mass of metal. This was not in relief but in the round, and the designs were fined out and not repeated so that,
from any angle the central mass of metal could be seen. They varied from one end of the mass to the other, too.
"But what is it?" That was Apsley. Then he said angrily, "God! What artists! And what beasts!"

Absorbed, Burroughs blinked at it.
"This is a new trick," he said. "At this end it's an infant. At that end it's an old woman. In between it's all the other ages. But I-I see the whole figure of the infant, and the whole figure of the old woman, and everything else . . . look at that! Here's where she changes her dress from that of a child to a marriageable woman. Primitive, but you can make it out. There she changes to a matron's hair style. There . . . what the devil is this, Marshall?"
"It's perspective," Marshall said in a curiously taut voice. "Look! We can take a series of pictures of a child as it grows up. In each one, in two dimensions we can give a perspective of three. If we stack a series of pictures of one person at different ages, we've got a series of two-dimensional sections of them. Looking at them one after the other, we can get a sort of vague idea that they're all the same person, and conceive somehow of a person growing up and growing old. But we won't get perspective. We can't make one threedimensional image which blends them all. But these creatures-whatever they were-they did!"
"Look at this detail, Marshall," Burroughs said, eagerly. "I could write a book about the costumes and hair-dress styles alone. It's a biography of a preMayan woman."
"Confound them," Apsley said harshly. "They've used the emotions of a child for contrast to adolescent imaginings, and the thrilling happiness. of early marriage, and-and-blast them -they've gloated over everything that's horrible in human life. They've even pointed up their gloating by contrasting it with the dreams of young people! I'd like to smash the rotten thing. I'd like to wipe it out!"

Marshall faced them, with the same tautness in his manner.
"But you miss the point," he said. "Listen, you chaps. We can't take three dimensions and give a perspective of four because we've never had the right viewpoint. But whoever made this had. Does it occur to you that the laws of perspective were discovered when the camera obscura was invented? When artists saw perspective they could paint it! If you think, you'll realize that you don't see this Indian woman from the front, or back, or from above, or below. You see her from time. You see all her ages at once! You see her from a fourth dimension! Now-how the deuce did these creatures learn how a human being looks from a dimension that's none of the three we know?"

THERE was silence. Marshall snapped off his flashlight. Apsley did the same. Burroughs reluctantly pointed to the doorway with his flash so they could stoop to go through it.

The peons were outside. Some of them were working to clear a better entrance to the hollow mound. The others were frankly loafing. There was nothing for them to do, and the plaques on the wall made them uncomfortable. So they had come out into the sunlight. Marshall nodded.
"I don't want to disturb those heaps of rust which aren't stainless steel," he said curtly. "There must be some way of getting those heaps of rust back to something like their original form. But it will take a technique that hasn't been developed as yet. Let's go back to camp and think."

He gave orders. His men piled cut llanas and brush over the opening they had cleared. It would keep any large animal out, and snakes and such already had ingress. They fell in behind the white men on the way back to camp. Señor Marshall was a good man to work for. He had rubber-tired wheelbarrows, and he did not try to keep men busy when there was no work to do. More-
over, he knew, always, exactly what he wanted done and explained it simply.

They had reached the edge of the lake when Marshall paused abruptly.
"A camera obscura threw objects in three dimensions into perspective in two dimensions," he said. "Then artists were able to duplicate the trick. These creatures must have had something that threw objects in four dimensions into perspective in three. I'm just as scared as you are now, Apsley. Those devils were civilized! They made steel that was better than any we knew how to make, and this art of theirs is amazing. And before you could visualize four dimensions in perspective in three, you'd have to have some command of four dimensions."
"And that means-what?" Apsley asked.
"An impossibility," Marshall snapped. "It would lead to a time-machine."

They walked along the lakeshore. It was perfectly round, that lake.
"That had been a tall building," Marshall said almost fretfully. "The bottom was intact. The level above the one where we were was smashed. What could smash a building of this size and make a lake such as this besides? Fifty thousand tons of TNT going off at once? An atom bomb? What destroyed this city? How could such a civilization fall? It should have been invincible against anything contemporary, and if they had weapons to match their other stuff, even modern men would be hard put to it to beat them."

The enigmatic pulsation of the air began. One felt it mostly in his chest. It was faint at first, but it grew stronger and stronger.

## "Señores! El aeroplano!"

Th peons babbled the words, pointing. Marshall turned, the others with him. And there in mid-air above the center of the circular lake they saw the thing. It was the mirror-bright of stainless steel. It was perhaps fifty feet long by twenty thick, and it had no wings or propellers or landing gear.

Along its sides were great doors, not faired into smoothness, but strictly utilitarian. Also there were folded-up things beneath, like the legs of a giant grasshopper, but more complicated and smaller in proportion to the size of the thing.

As they gaped at it, it vanished, fading into cloudiness and then into nothingness within seconds. The throbbing pulsations died away.
"Did you say impossible?" Apsley asked very quietly. "That was a timemachine, Marshall. It couldn't be anything else. When I saw it, I knew! That's what I'm afraid of."
"It was going through," Marshall said grimly. "That changes everything. It could probably stop here. Where-the -devil does it go? I hope to God it doesn't come back."

But it did.

## IV

$\mathbf{N}$EXT morning Pete Marshall looked as if he hadn't slept. At breakfast he scowled savagely.
"I admit it, I'm scared out," he said. "We're going to make a dash over to the place we got into yesterday. We're going to take out what plaques we can, and that abomination upstairs. Then we're going back to the coast. With that artwork to show, we'll be believed. The Mexican Government has sense in such matters, anyhow. We'll come back here with a regiment of soldiers to guard against possible unauthorized looters. We'll have a couple of anti-aircraft guns mounted to command the lake. Then we'll see what we see."

Apsley drew a deep breath. Burroughs looked stubborn, but he kept his mouth shut.
"If I know humans, those plaques are going to rate as super-modernistic art," Apsley said after a moment. "Being twenty thousand years old they'd fetch prices that will knock your eyes out. They'll go in museums. But personally, I wouldn't want to have any of them in a house I lived in!"

Marshall glowered.
"When we say we were scared away by a time-machine, how many kinds of liars will they call us?"
"Who cares?" Apsley shrugged. "Frankly, I don't think the danger is to us alone. As you said, if they had-have -had weapons on a par with the rest of their culture, they're plenty dangerous.

Marshall made an angry gesture. That was really what was in his mind. He finished his breakfast in silence. He ordered the camp equipment packed by a gang he left behind. But the three white men, with most of the peons, went down to the lake and headed around its border for the mound into which they'd dug an entrance.

They were three-quarters of the way there, with the peons straggling in their wake along the half-swampy shore, when the queer throbbing sounded in the air once more.

The men faced the lake, expectantly. Instinctively the white men turned their eyes in the same direction.

There was a cloudiness in the air. which thickened as the throbbing grew more intense.

Suddenly the fifty-foot metal hull flashed into view. It was a good sixty feet above the water.

It stayed in view for two seconds or thereabouts, and vanished again. The throbbing died away.

The peons babbled. Then they came on. It was un aeroplano. It was mysterious. But while they had seen airplanes or heard of them enough not to be afraid of them, they did not know them well enough to realize that this was something different.

Apsley was white as they resumed their march. Marshall ground his teeth. There were only two things they could do: run away at once or do as they had planned; take some artifacts and get out quickly, or clear out without anything at all. They went on to the mound.

They moved with speed, at that. Burroughs assumed charge of three men and
began to chip one bright-steel plaque out of the wall inside the mound. Apsley set to work with others on a second plaque. Marshall equipped six of them with poles and canvas and went to try to manhandle the round sculpture-if you could call it that-down the ramp. He hoped to be able to sling it in a sort of litter between two mules and get it to the coast that way. All of them set to work.

MARSHALL could hear nothing at all, deep in the mound with ten to twenty feet of mould and vegetation above him, atop an unguessed-at depth of folded, shattered masonry. Apsley and Burroughs could hear little more. They may have heard the throbbing return, but it was muted, and would hardly be felt distinctly through the fourfoot doorway and the tunnel from the open air. It stopped.

Apsley worked on grimly. He did not turn his head. He had a feeling that something was wrong, but he'd had such an idea all along. There was nothing to be done but finish the job and get away from this place.

Burroughs went stolidly about his task, noting as he worked new details of anthropological interest in the bas-relief he was loosening from the wall. Neither of them, orcitue, patd any attention to the peons who had no immediate usefulness within the mound and so stayed outside. Apsley, afterward, thought he remembered an excited babbling, but then he was engrossed in what to him was the distasteful task of taking down the revolting plaque from the wall.

Marshall's task, in its essentials, was the easiest. The Indian-woman art object simply had to be swathed in canvas, lifted from its base-though that was a job-and then wrangled onto stout sticks and through the doorway, down the ramp and then through two other doors.

But it was hair-raising to try to do it without hitting any of the designs which
surrounded it. The task had to be performed step-by-step, with men balancing the mass on either side and keeping it from sliding or rolling or lurching catercornered out of sheer clumsiness.

Marshall and his helpers were sweating freely when they got it into the big room they'd first entered. Apsley had his first plaque down. Burroughs was almost as far advanced.
"These men have worked long enough," Marshall said, "I'll call in some others to start it toward camp."

He bent down and went out-of-doors. There was nobody near. He stared about him. The peons had vanished. Completely.

Then he saw the thing above the lake.
It was out there above the middle of the water. It was just what they had seen, and just in the same place. The contrivances like grasshopper-legs had unfolded incredibly. They reached down, thin and spidery, to and into the water. They actually upheld the mirror-bright cylinder in the exact spot in mid-air where before it had appeared-and vanished.

Directly underneath the cylinder there was a floating object which was certainly new to the lake. There were huddled figures on it. Human figures. The peons, who half an hour since had been cheerfully loafing before the entrance to the mound, were out there.

Then Marshall saw thinning smoke coming from the jungle by the lake's edge. It was white, stifling smoke. And tropic jungle does not catch fire. Not in Yucatan!

IN THREE minutes Marshall had settled on a plan and given orders. The peons were to use their machetes and cut a way through the jungle to the camp, avoiding the shore. Apsley and Burroughs would go with them.

Apsley quietly refused. Burroughs swore, but one of the three white men had to go. The men were to be gotten out of the camp. To the devil with
equipment. Get the men away! They could wait out of sight, with a courier service ready to tell them when to run, if necessary. Burroughs would remain somewhere near the camp, taking photographs if he could. He would use his judgment but he was to get out with news of what had happened, and pictures if possible.
"That thing can't fly, or it wouldn't stay out there in the middle of the lake like a stork," Marshall said grimly. "It appeared before in that exact spot, remember. I suspect it has to. I'm going to see what I can do, but if anything happens, this'll be a job for bombing planes."

He watched the men disappear into the jungle, single file and bent over, the lead man slashing a way through creepers and vines for the rest. With no burdens and no need to cut more than space for one man to squeeze through, they could travel swiftly-for jungle work.

Marshall started grimly for the lakeshore. Apsley went with him.
"You're a fool," Marshall said angrily. "You should get out and back up Burroughs' story!"
"The peons thought that thing was a plane," Apsley said irrelevently. "It put down those legs, and they thought that was all right too. Next the floating thing came ashore, and they piled down to meet the aeronauticos. And then something happened. There was a fire somewhere. And why are they left floating on the lake? Why weren't they taken up into the thing? There ought to be room enough. Those doors along the side look like cargo-hatches."

Something stirred alongside the mir-ror-bright object. Then two things went dangling downward along ropes. One was plainly a human being. The other was much smaller, and there was mirror-brightness about it. But it had members, and they moved as if purposefully.

The two dangling objects, the one human, the other something else, halted fifteen feet above the floating object.

Human figures gesticulated wildly from the float. Sunlight flashed on metal. They were waving machetes. A faint, faint ululation came over the water. The men on the floating thing screamed de-fiance-imprecations-threats.

There were puffs of steam from the surface of the water. Marshall swore. His hands were clenched. He broke into a run.
"But what are you going to do?" Apsley asked, pelting along beside him.
"I don't know," Marshall cried. "But I've got to do something."

He reached the edge of the water. He shouted furiously, and there was an answering chorus of cries from the peons on the float. One of them suddenly flung himself overboard. Then there was a jetting of steam from the surface of the lake. Then cries.

Sullenly the man swam back and hauled himself onto the float again.

Marshall roared imprecations, the more furious because futile. He had no boat. He had a revolver. Back at camp there were some sporting-rifles, and a certain amount of explosive such as he'd used to make a crater at the first dig. There were cameras and induction-balances and rubber-tired wheelbarrows. But there were no weapons with which to attack anything like this!

HIGH up, on the brightly-polished thing, an object moved. It was so small that one could only be sure that some object was moving. But instantly thereafter there came a burst of unbearable heat, and a section of green jungle to Marshall's right erupted into flame. A pause, and a second section erupted volcano-like on his left. Then another pause, and treetops overhead exploded horribly.

Marshall ground his teeth and clenched his hands. But no fourth flare of heat appeared.
"That was to scare me, so i'd stay here until they're ready to come after me," he said in an icy voice, "sneak away through the jungle, Apsley! Tell Bur
roughs the creatures have heat-rays. All he knows is primitive man. That's important information."
"He couldn't help seeing," Apsley said calmly.

There were no more outcries from the peons on the float beneath the timemachine. The dangling thing which was not human-it was wearing armor of some sort-continued to hang at the end of the cable ten or fifteen feet from the float.

Once, Marshall almost believed that he saw a cord leading from it to the float. The human figure had been replaced among its fellows. The peons shifted their positions. They were not under restraint, except from swimming ashore. They still had their machetes.

Time passed. A long, long time. Marshall fumed. Then a man leaped overboard and swam strongly for the shore. No jets of steam sprang up to check him. A second man, a third and fourth and fifth. The rest remained on the float.
"They're turned loose," Marshall said, scowling. "At least they were allowed to leave."
"Why not all of them?"
"Maybe they can't swim," Marshall growled. :"We'll go and see what they have to say."

He stalked along the lakeshore, thrusting through the savannah-grass that grew at the edge.

There was no further threatening stab of heat. Half a mile on, they found the first of the peons just wading out of the water. He was scared, but he still had his wits about him.

Apsley had guessed correctly. They had seen the thing appear above the lake. Something like a boat had come toward the shore. They'd gone down to meet the aeronauticos. When the peons saw the stranger-creatures they were frightened, because they seemed so small.

When they would have fled, the jungle burst into flame all around them, and four tiny figures in metal suits-"como plata, señor-" like silver, had rounded
them up, driving them onto the queerly shaped craft. One man, maddened by fear, had tried to attack the creatures with his machete. Instantly he screamed with pain. One arm and part of his breast seemed to burst into steam. He was out on the float now, moaning.

The rounded-up peons had been taken out to the stilt-supported object, and one of them hauled aloft. Half an hour later - just now-he'd come down with a strange expression on his face, wearing a metal cap upon his head. He said that the people of the aeroplano were friends, muy generoso, and admirable persons.

Since jets of steam had just kept one of them from escaping, the others had questioned the assertion. Soon he had asked questions which he said the men on the aeroplano wished to have answered. Where the men had come from, how many people lived there, what they did here, and if they had ever heard of a city at this place?

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ARSHALL interjected a sharp query. The answer was no. The answers they gave to Juan, who wore the cap, were not translated by him. It was as if he merely wished the dangling dwarf in the suit like silver to overhear,

Keen questioning had gone on. They had told about the white men for whom they worked, and of the white men's marvelous devices. Then Juan-he with the metal cap and strange expressionhad said that anybody who wished to go ashore could do so, with a message that the men in the ship wished to speak to the white men, and would come ashore presently. They wished to be friends.

But after this Juan had taken off the cap and immediately his face had become empty and like that of an idiot. He had sat making faces to himself and uttering mewing sounds. He would not speak again, and the man in the silvery suit was hauled up out of sight. Then the rest of the peons had swum ashore.

The others, on arrival, were three parts panicky and one part bewildered.

They confirmed this account in every detail. They stared imploringly at Marshall. He had their confidence. If he were frightened, they would be frightened. If he were brave they would be-well-relatively brave.

Marshall led the way toward the camp. On the way he abruptly asked what had happened to the cap after Juan took it off. It had been attached to a long cord, and the little man in the shining armor carried it up with him.

Burroughs and the rest of the peons cut their way to the camp a little later. Marshall started to pace up and down, his forehead corrugated. Apsley told Burroughs the news while Marshall scowled and muttered to himself. Before he had finished, there was a cry from the peon who had been set on guard to watch the time-machine.
"Mas aeroplanos, señor!"
Marshall's face went gray. Then the cries were specific.
"Dos poquitos, señor! Does aeroplanos poquitísimos!"

Two little ones. Two very little ones!

$\mathrm{A}^{\mathrm{N}}$N OBJECT darted across the sky. It was not a duplicate of the great machine on stilts. Something whirred above it. It came to a dead stop in midair directly above the encampment. It seemed to survey the camp. The cockpit was completely enclosed. The whole machine was no more than ten or fifteen feet long. It suddenly moved away, so swiftly that the eye could not quite follow it.
"Helicopters or something like that," Marshall said harshly. "That settles it. We haven't the ghost of a chance to get away."
"I don't see why not," Burroughs said irritably. "Jungle will hide anything."

Apsley viewed the subject with his usual detachment.
"I see it, I think," he said. "Because they stopped at this place-or time?" When Marshall nodded, he went on precisely. "I have been thinking. That In-dian-woman thing proves they know
more about the fourth dimension than we do. It hinted at their ability to make a time-machine. The plaques hinted at a particular ability to perceive emotions. The way that time-machine has been-well-casting back and forth since we've been here has been remarkably like the questing casts of a bird dog who smells something, just before he points."

He looked at Marshall, and Marshall nodded again.
"That is a time-machine," Apsley said. "If it was hunting for a particular moment in which to stop, it is odd that it stopped at just the time we're here in this valley, which probably hasn't had men in it before for thousands of years. Unless-unless it came because we were here." He licked his lips and went on. "After all, the way it appeared and disappeared does seem like it was casting back and forth through time to find a particular moment. So it must havestopped on our account. And if it could scent us out from the fourth dimension, it's rather likely its helicopters could scent us from a few hundred feet overhead if we tried to duck through the jungle."
"Of course," Marshall said curtly. "Do you realize what happened to Juan?"

Burroughs blinked. Apsley gagged.
"He wore a cap and asked questions," Marshall said savagely. "He asked questions he already knew the answers to! Then he took off the cap-it was on a cord which would be an electric cableand promptly became an idiot. You see? They could use his brain as a translating device, if he wasn't in it. But they couldn't read it. They wouldn't have had to ask questions if they could. All they could do was make him an idiot and use him as part of a device for communication with us. You see what that implies?"

Apsley's smile was sickish.
"Those plaques and the Indian-woman thing didn't represent idiots," Marshall went on. "They represented human beings in the most overwhelming and painful of emotional states. That's their

Idea of emotional satisfaction. My stars! Spanish art goes in for pictures of bullfighting. They'd go in for pictures of people gripped by horror and despair and frenzy because-to sense such things is their idea of pleasure!"

Marshall paced up and down again. He stopped.
"I think we can guess the rest," he said coldly. "They enjoy human emotion, because they like to portray it, and the more poignant the better. My suspicion is that they will want to collect human beings as sources of pleasure."
"What's that?" Burroughs demanded sharply.
"The Romans," Marshall said sardonically, "ravaged all the known world for wild beats to die in their arenas, because they liked to watch it. This is in addition to the slaves and criminals they killed. Think back to the time when this city was standing. The human population of the world was thin then, everywhere. Maybe these creatures thinned it! So if there weren't enough humans to torture in their world and period, why shouldn't they hunt through time for more victims?"

Apsley moved quickly to the edge of the camp. He was sick. Then another shout came from where men watched the lake.
"Señores! Señores!"
The floating thing was moving through the water. It came matter-offactly toward the point of the shore nearest to the camp.

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wHEN it reached the shore it did not stop. Without a pause it came onto dry land. It was, in effect, an amphibious tractor with a flat, wide deck on which to carry a load. It had a small cabin forward which seemed to be transparent plastic.

There were two small figures inside, clad in metal suits which gleamed with an ever-so-faint yellowish tint as they
stirred. Small, searchlight-like objects on top of the cabin moved restlessly, wavering back and forth from one group of humans to another.

The peons who had not swum ashore rode on the deck. When it stopped, one of them spoke tonelessly and the others leaped off, helping a groaning comrade to the ground. He was the one who had been burned on arm and shoulder.

One human figure remained seated on the deck. It was-it had been-Juan, whom Marshall had heard cracking jokes as he played some game while on guard the first night of the encampment in this valley. Now he wore a metal cap on his head, from which a wire dangled, leading to the cabin. His expression was of an icy tranquillity. It was unearthly.
"Señores," he said in a curiously emotionless tone, "los gentiles hombres de la maquina desean preguntarles algunas cosas."

It was unhuman, that speech. It was a message from creatures of the thing above the lake, speaking through Juan's brain and lips. His brain translated thoughts into words as he knew, and would translate words back into the thoughts the creatures of the time-machine could understand. The transfer was possible only because Juan's own intelligence was not present to interfere. His brain had become a living machine.

Marshall growled.
"Very well," he said, in Spanish because Juan's brain could handle nothing else. "I realize I speak direct to you from the time-machine. What do you wish to know?"

A pause. Juan's face remained emotionless. Then, still without intonation, he asked questions. How far to the place from which the white men had come? How many people there? They had metal. How many metals did they know?
"Ninety-four elements, of which some are metals," Marshall answered. The query was to learn the degree of civilization of the white men, who obviously
had advanced beyond the Indians, the only men the creatures of the time-machine had known before.

Another pause. The toneless voice again. Why had they come here? What were the legends about the city?
"The city is unknown to any men but us!" Marshall snapped.

The unhumanly inflected voice went on, using Juan's lips and Juan's vocabulary to ask questions he could never conceivably have thought of. How many people in other nations? In all the world? It took time for the world-population estimate of two billion human beings to reach a phrasing Juan's brain could translate. Other questions.

One of Marshall's answers implied the use of power. So men had power, now! What was its fuel?
"The same as yours," Marshall growled.
"What metal is broken up?" Juan's voice said, and Marshall fairly jumped.

FOR a metal to be broken up as a fuel meant atomic power. Marshall lied, deliberately using Juan's limited vocabulary to confuse the issue.

The voice asked coldly whether men had found it possible to stabilize power so that it did not require constant attention. Marshall said no. Then came questions about weapons; Marshall deliberately multiplied the efficiency and range of human armaments. He suddenly barked a question of his own.
"Where do you come from?"
The reply was tonelessly contemptuous. "An answer would have no meaning to you. From another star."
"And you must wear special suits and helmets or die," Marshall rasped out. "Why do you stay when even our air is not fit for your breathing?"

The question was ignored. There was merely a perceptible delay. Then specific inquires on power. How did men broadcast their power. With Juan's vocabulary, that came out in Spanish:
"How is power spread through the air?"

Marshall sweated, and said he was a specialist in another field. The questions changed again. Shrewd questions, penetrating questions, utterly without any quality of human feeling or emotion of any sort. . A calculating, deliberate merciless brain formed them, so contemptuous of humanity that it made no attempt to forestall speculation of the purpose behind such quest of knowledge. At the end Marshall threw in another query.
"Why do you seek men?" he asked.
The toneless voice answered with the same contemptuous baldness of phrasing.
"Pleasure. You would not understand."
"I think I would," Marshall said grimly.
"Never," said the voice, icily. "Our race is old as your sun. Emotion is bred out of it for intelligence, but emotion is pleasure. Your race provides us with pleasure. You would not understand that."
"I rather think I do," Marshall said savagely. "But you feel only one emotion. You would like to know why your city, which was great and thriving in the time you came from, is now a jungle. You have the emotion of curiosity, and perhaps of fear!"

There was no answer. Instead, uninflected words continued.
"We shall take back your possessions for study. You will follow to your camp. You will load your belongings on this vehicle. We shall not take any of you with us this time. It would be inconvenient and useless. You are only men."

The thing that had come ashore moved forward. The small things atop it stirred. The jungle before it flared into flame. The tractor rolled deliberately into a very inferno of its own creation. Heat-rays literally burned a path through dense forest.

The men were left behind. Apsley watched it with scientific detachment.
"I am puzzled," Apsley said. "Before they came, I was scared. Now I'm not
scared any more. What do you make of all this, Marshall?"

MARSHALL led the way through the hacked-through path that would lead to the camp without going through the roasting heat of the way the tractor had blasted.
"They use atomic power," he said. "It's dangerous, even to them. The generators have to be watched all the time. They broadcast their power-probably on that account. And they're taking all our stuff home to study, to find out how much we know. By the way, you notice they're wearing garments like divingsuits. Our air doesn't suit them. By their color, I suspect its mostly chlorine. That would explain why they needed to develop so perfect a stainless steel. With any moisture at all, ordinary iron wouldn't last an hour, and it's the most plentiful strong metal anywhere. I wonder how they held the atmosphere in place over their city? Force-fields?"

He led the way. The peons were cowed. They followed the white men simply because the white men seemed to know what to do. Because the white men had talked-in Spanish-with Juan who spoke for the things in the object over the lake. Because the white men did not seem to be scared as the peons themselves were.
"But that dosn't change the fact that things look bad," Apsley said.
"It changes everything," Marshall said sternly. "Look! We've got to load up their tractor or be burned down. It won't hold all our stuff. We'll keep out grub. Understand?"

They came in sight of the camp. The tractor waited. Behind it a smoking lane of acrid smoke led back to the lakeshore.
"Confident devils !" Burroughs was indignant. "They didn't even think we might run away!"
"Useless," Marshall answered. "You chaps keep them busy watching you while I pack up for them."

Apsley was better at it than Bur-
roughs. Burroughs was furious. Apsley created a diversion by arranging that only one of each article was to be loaded, to save space. One wheelbarrow, one shovel, one tent, one induction-balance.

Presently Marshall staggered up with a huge parcel. He put it in place and tied it fast. He arranged the lashings which completed the job. He stood back, brushing his hands grimly.

Juan, the peon with the metal cap and the strange expression on his face, spoke again tonelessly.
"Bueno pues," Juan said. "We shall take this back. And you have curiosity, too. You may know about the city. We will return with our report. Our race will move forward in time, to this age which has two billion humans for our pleasure. We will build a new city, perhaps here, perhaps elsewhere, removing all we wish from the old. And that the human race may not be warned of our existence between the times of our ruling of the earth, we will destroy the early city after the new one is built."

Then Juan-who was part of the com-munication-apparatus of the creatures in the machine out of time-Juan stepped down to the ground, and took the metal cap off his head, and instantly his features became utterly vacuous. He made grimaces to himself, and little bubbling sounds.

ABRUPTLY the tractor stirred. It moved, with its bulky load of possessions from the expedition. The stuff had been tied fast. It moved off toward the still-smoking lane through the jungle. One of the searchlike things turned until it was pointed at Juan. He exploded in incandescent steam.

Twenty minutes later, Marshall and Apsley and Burroughs stood at the edge of the jungle and watched the metal cylinder above the lake.
"They can tell our emotions," Marshall growled, "I knew I was plenty sore, so I had you two stay around the tractor while I packed up."

The tractor, floating soggily, came out
of the water attached to cables. It was hauled up to the bright cylinder on stilts. The two helicopters came back, hovered briefly, and were swallowed up.

The tractor went up and up, swaying, and Marshall's hands clenched tightly. A great side door opened, and the tractor was swung within. The door closed.

Suddenly there was a throbbing pulsation in the air and the metal thing grew cloudy, and the spindly legs began to fold up to its bulk even as they grew unsubstantial. Then the air above the lake was empty. Marshall smiled grimly. Apsley drew a long breath.
"I've got a hunch," he said quietly. "I was scared before that thing got here. Then, suddenly, while we were talking to it down by the shore, I wasn't scared any more. What is it, Marshall ?"
"Blast 'em!" Burroughs sputtered. "They got some of my notes! And the peons are already loading the mules. They're leaving. We can't make them stay any longer, Marshall."
"That's all right," Marshall said. He added sourly, "Mighty superior creatures, weren't they? Didn't bother to take any of us back because we were only men. Didn't mind telling us what their plans would be because we're too puny to interfere. They take everything they want out of the city and destroy it so the human race won't know anything about them between the two periods when they rule the world. The devil with them!" He turned and moved back toward the encampment.
"We're leaving, just the same, and staying away," he said. "We want things to work out as they did. If we hung around now, while they made those casts through time for humans, we might mess up the past. But if we stay away they'll never come back."

Apsley followed close behind.
"I've got a hunch that it's all right," he said. "What causes it, Marshall?"

MARSHALL grinned mirthlessly. "They didn't take everything out of the city before they destroyed it, did
they?" he answered. "And the way to destroy a city is with a lot of little explosions, not one big one. They didn't take out their works of art, and we saw the rust that was their machines. And there's this lake that says the city was destroyed by an explosion equivalent to fifty thousand tons of TNT going off at one time! That would smash whatever kept their atmosphere so they could breathe, and every one of the race that the explosion didn't kill would die of breathing the very air we humans thrive on. They're dead, every 'one! They've been dead for twenty thousand years!"

His fists clenched and unclenched.
"Rotten beasts," he added. "Using humans for pleasure! Making men suffer because they enjoyed it! Cruel beasts! Serves 'em right!"
"What did you do?" Apsley demanded.
"They were so certain and confident after I'd told them about our guns," Marshall said wrathfully. "When I said we had atomic power too, they asked if it had to be watched. And they broadcasted their power. That wasit. Atomic power is tricky, and has to be watched. So I fixed up something they couldn't watch against! We're only men. They weren't afraid of us. So I took all the explosive we had and made a booby-trap. While it was left on the tractor the way I piled it, it would be all right. But the last thing I did was to pull out a string that armed it. When they started to unload that tractor, eighty pounds of demolition explosives was fixed to go off !"

Apsley stared at Marshall.
"Why are you so sure?" he asked.
"There was an atomic-power unit in the time-machine," Marshall said. "Had to be! They couldn't broadcast power through time. So the machine will go back to their city, and they'll start unloading what they've taken back, and the booby-trap will blow up. In a thing the size of that machine it will raise the devil. The atomic-power unit in the machine will blow. That will be a darn sight bigger explosion. And that will set off the atomic-power unit which runs
their whole city and keeps their atmosphere in and does everything else. That'll be an explosion equal to fifty or sixty or a hundred thousand tons of TNT, and it will blow their city to blazes!"
"Maybe-but-it might not happen..." Apsley said doubtfully.
"And the answer to that is that it did explode!" Marshall waved his hand back toward the ruins. "The city's gone, isn't it? Well, $I$ destroyed that citytwenty thousand years ago!"

They reached the camp. The peons were working in a queer, nerve-wracked haste, loading the mules with what was left. If Marshall had tried to stop them, they would have run away. Instead, he organized them. In a half-hour the expedition swung off on the trail that would lead back toward the coast. And that night Burroughs complained.
"Hang it!" he said querulously. "I know my primitive man, but I still don't understand what happened. You're sure those creatures will never return?"

Marshall nodded.
"But we never even got a glimpse of them," Burroughs said. "We don't know what they were really like."
"Personally," said Apsley, "I don't even want to know."
"Blast the luck!" Burroughs snapped. "A culture like that-we should at least have tried to work out the real cause that doomed it. There was a marvelous civilization, and it vanished utterly. What happened to all its technics, its knowledge, its sciences?"
"Marshall," Apsley said drily.
"Let's say that it was us who did it," Marshall said. "But nobody'll ever believe us. We happened to it!"

But in that he was a bit over-generous. It was really Marshall's show from beginning to end. His, and the knife's. Only it's four knives now. He has four fine stainless steel knives, and he's considered a crackpot because he insists they're twenty thousand years old. What's more, Burroughs and Apsley agree.



By RICHARD MATHESON

Can a selfish mother tie a machine to her apron strings?

BUT I died," he said.

His father looked at him without speaking. There was no expression on her face. He stood over the bed and. . . .

Or was it the bed?
His eyes left his father's face. He looked down and it wasn't the bed. It
was an experimental table.
He was in the laboratory.
His eyes moved back to those of his father. He felt so heavy. So stiff. "What is it?" he asked.

And suddenly realized that the sound of his voice was different. A man didn't
know the actual sound of his voice, they said. But when it changed so much, he knew. He could tell when it was no longer that voice of a man.
"Peter," his father spoke at last, "I know you'll despise me for what I've done. I despise myself already."

But Peter wasn't listening. He was trying to think. Why was he so heavy? Why couldn't he lift his head?
"Bring me a mirror," he said.
That voice. That grating, wheezing voice.

He thought he trembled.
His father didn't move.
"Peter," he said, "I want you to understand this wasn't my idea. It was your. . . ."
"A mirror."
A moment longer his father stood looking down at him. Then he turned and walked across the dark-tiled floor of the laboratory.

Peter tried to sit up. At first he couldn't. Then the room seemed to move and he knew he was sitting but there was no feeling. What was wrong? Why didn't he feel anything in his muscles? His eyes looked down.

His father took a mirror from his desk.

But Peter didn't need it. He had seen his hands.

Metal hands.
Metal arms. Metal shoulders. Metal chest. Metal trunk, metal legs, metal feet.

## Metal man!

The idea made him shudder. But the metal body was still. It sat there without moving.

His body?
He tried to close his eyes. But he couldn't. They weren't his eyes. Nothing was his.

Peter was a robot.

HIS father came to him quickly.
"Peter, I never meant to do this," he said in.a flat voice. "I don't know what came over me-it was your mother."
"Mother," said the machine hollowly.
"She said she couldn't live without you. You know how devoted she is to you."
"Devoted," he echoed.
Peter turned away. He could hear the clockwork of himself ticking in a slow, precise way. He could hear the machinery of his body with the tissue of his brain.
"You brought me back," he accused.
His brain felt mechanical too. The shock of finding his body gone and replaced with this. It numbed his thinking.
"I'm back," he said, trying to understand. "Why?"

Peter's father ignored his question.
He tried to get off the table, tried to raise his arms. At first they hung down, motionless. Then, he heard a clicking in his shoulders and his arms raised up. His small glass eyes saw it and his brain knew that his arms were up.

Suddenly it swept over him. All of it. "But I'm dead!" he cried.
He did not cry. The voice that spoke his anguish was a soft, rasping voice. An unexcited voice.
"Only your body died," his father said, trying to convince himself.
"But I'm dead!" Peter screamed.
Not screamed. The machine spoke in a quiet, orderly way. A machine-like way.

It made his mind seethe.
"Was this her idea?" he thought and was appalled to hear the hollow voice of the machine echo his thought.

His father didn't reply, standing miserably by the table, his face gaunt and lined with weariness. He was thinking that all the exhausting struggle had been for nothing. He was wondering, half in fright, if toward the end he had not been more interested in what he was doing than in why.

He watched the machine walk, clank rather, to the window, carrying his son's brain in its metal case.

Peter stared out the window. He could see the campus. See it? The red
glass eyes in the skull could see. The steel skull that held his brain. The eyes registered, his brain translated. He had no eyes of his own.
"What day is it?" he asked.
"Saturday, March tenth," he heard the quiet voice of his father say, "Ten o'clock at night."

Saturday. A Saturday he'd never wanted to see. The enraging thought made him want to whirl and confront his father with vicious words. But the big steel frame clicked mechanically and eased around with a creaking sound.
"I've been working on it since Monday morning when. . . ."
"When I killed myself," said the machine.

H
IS father gasped, stared at him with dull eyes. He had always been so assured, so brittle, so confident. And Peter had always hated that assurance. Because he had never been assured of himself.

## Himself.

It brought him back. Was this himself? Was a man only his mind? How often he had claimed that to be so. On those quiet evenings after dinner when other teachers came over and sat in the living room with him and his parents. And, while his mother sat by him, smiling and proud, he would claim that a man was his mind and nothing more. Why had she done this to him?

He felt that fettered helplessness again. The feeling of being trapped. He was trapped. In a great, steel-jawed snare, this body his father had made.

He had felt the same rigid terror for the past six months. The same feeling that escape was blocked in every direction. That he would never get away from the prison of his life; that chains of daily schedule hung heavy on his limbs. Often he wanted to scream.

He wanted to scream now. Louder than he ever had before. He had chosen the only remaining exit and even that was blocked. Monday morning he had slashed open his veins and the blanket
of darkness had enveloped him.
Now he was back again. His body was gone. There were no veins to cut, no heart to crush or stab, no lungs to smother. Only his brain, lean and suffering. But he was back.

He stood facing the window again. Looking out over the Fort College campus. Far across he could see-the red glass lenses could see-the building where he had taught Sociological Surveys.
"Is my brain uninjured?" he asked.
Strange how the feeling seemed to abate now. A moment ago he had wanted to scream out of lungs that were no longer there. Now he felt apathetic.
"As far as I can tell," said his father.
"That's fine," Peter said, the machine said, "That's just fine."
"Peter, I want you to understand this wasn't my idea."

The machine stirred. The voice gears rubbed a little and grated but no words came. The red eyes shone out the window at the campus.
"I promised your mother," his father said, "I had to, Peter. She was hysterical. She . . . there was no other way."
"And besides, it was a most interesting experiment," said the voice of the machine, his son.

Silence.
"Peter Dearfield," said Peter, said the turning, twinkling gears in the steel throat, "Peter Dearfield is resurrected !" He turned to look at his father. He knew in his mind that a living heart would have been beating heavily, but the little wheels turned methodically. The hands did not tremble, but hung in polished muteness at his steel sides. There was no heart to beat. And no breath to catch, for the body was not alive but a machine.
"Take out my brain," Peter said.
His father began to put on his veat his tired fingers buttoned it slowly.
"You can't leave me like this."
"Peter, I . . . I must."
"For the experiment?"
"For your mother."
"You hate her and you hate me!"
His father shook his head.
"Then I'll do it myself," intoned the machine.

The steel hands reached up.
"You can't," said his father, "You can't harm yourself."
"Damn you!"

$\mathbf{N}^{0}$
0 OUTRAGED cry followed. Did his father know that, in his mind, Peter was screaming? The sound of his voice was mild. It could not enrage. Could the well-modulated requests of a machine be heeded?

The legs moved heavily. The clanking body moved toward Doctor Dearfield. He raised his eyes.
"And have you taken out the ability to kill?" asked the machine.

The old man looked at the machine standing before him. The machine that was his only son.
"No," he said, wearily, "You can kill me."

The machine seemed to falter. Gears struck teeth, reversed themselves.
"Experiment successful," said the flat voice, "You've made your own son into a machine."

His father stood there with a tired look on his face.
"Have I?" he said.
Peter turned from his father with a clicking of gears not trying to speak, and moved over to the wall mirror.
"Don't you want to see your mother?" asked his father.

Peter made no answer. He stopped before the mirror and the little glass eyes looked at themselves.

He wanted to tear the brain out of its steel container and hurl it away.

No mouth. No nose. A gleaming red eye on the right and a gleaming red eye on the left.

A head like a bucket. All with little rivets like tiny bumps on his new metal skin.
"And you did all this for her," he said.
He turned on well-oiled wheels. The red eyes did not show the hate behind
them. "Liar," said the machine. "You did it for yourself-for the pleasure of experimenting."

If only he could rush at his father. If only he could stamp and flail his arms wildly and scream until the laboratory echoed with the screams.

But how could he? His voice went on as before. A whisper, a turning of oiled wheels, spinning like gears in a clock.

His brain turned and turned.
"You thought you'd make her happy, didn't you?" Peter said, "You thought she'd run to me and embrace me. You thought she'd kiss my soft, warm skin. You thought she'd look into my blue eyes and tell me how handsome I. . . ."
"Peter this will do no. . . ."
". . . how handsome I am. Kiss me dn the mouth."

He stepped toward the old doctor on slow, steel legs. His eyes flickered in the fluorescent light of the small laboratory.
"Will she kiss my mouth?" Peter asked, "You haven't given me one."
His father's skin was ashen. His hands trembled.
"You did it for yourself," said the machine, "You never cared about heror about me."
"Your mother is waiting," his father said quietly putting on his coat.
"I'm not going."
"Peter, she's waiting."
The thought made Peter's mind swell up in anguish. It ached and throbbed in its hard, metal casing. Mother, mother, how can I look at you now? After what I've done. Even though these aren't my own eyes, how can I look at you now?
"She mustn't see me like this," insisted the machine.
"She's waiting to see you."
"No!"
Not a cry, but a mannerly turning of wheels.
"She wants you Peter."
He felt helpless again. Trapped. He was back. His mother was waiting for him.

The legs moved him. His father opened the door and he went out to his mother.

$S^{\text {i }}$HE stood up suddenly from the bench, one hand clutching her throat, the other holding her dark, leather handbag. Her eyes were fastened on the robot. The color left her cheeks.
"Peter," she said. Only a whisper.
He looked at her. At her grey hair, her soft skin, the gentle mouth and eyes. The stooped form, the old overcoat she'd worn so many years because she'd insisted that he take her extra money and buy clothes for himself.

He looked at his mother who wanted him so much she would not let even death take him from her.
"Mother," said the machine, forgetting for a moment.

Then he saw the twitching in her face. And he realized what he was.

He stood motionless; her eyes fled to his father standing beside him. And Peter saw what her eyes said.

They said-why like this?
He wanted to turn and run. He wanted to die. When he had killed himself the despair was a quiet one, a despair of hopelessness. It had not been this brainbursting agony. His life had ebbed away silently and peacefully. Now he wanted to destroy it in an instant, violently.
"Peter," she said.
But she did not smother him with kisses. How could she, his brain tortured. Would anyone kiss a suit of armor?

How long would she stand there, staring at him? He felt the rage mounting in his mind.
"Aren't you satisfied?" he said.
But something went wrong inside him and his words were jumbled into a mechanical croaking. He saw his mother's lips tremble. Again she looked at his father. Then back at the machine. Guiltily.
"How do you . . . feel, Peter?"
There was no hollow laughter even though his brain wanted to send out
hollow laughter. Instead the gears began to grin and he heard nothing but the friction of gnashing teeth. He saw his mother try to smile, then fail to conceal her look of sick horror.
"Peter," she wailed, slumping to the floor.
"I'll tear it apart," he heard his father saying huskily, "I'll destroy it."

For Peter there was an upsurge of hope.
But then his mother stopped trembling. She pulled away from her husband's grip.
"No," she said and Peter heard the granite-like resolve in her voice, the strength he knew so well.
"I'll be all right in a minute," she said.
She walked straight toward him, smiling.
"It's all right, Peter," she said.
"Am I handsome, Mother?" he asked.
"Peter, you. . . ."
"Don't you want to kiss me, mother?" asked the machine.

He saw her throat move. He saw tears on her cheeks. Then she leaned forward. He could not feel her lips press against the cool steel. He only heard it, a slight thumping against the metal skin.
"Peter," she said, "Forgive us for what we've done."

All̆ he could think was-
Can a machine forgive?

THEY took him out the back doorway of the Physical Sciences Center. They tried to hustle him to the car. But halfway down the walk Peter saw everything spin around and there was a stabbing in his brain as the mass of his new body crashed backward on the cement.

His mother gasped and looked down at him in fright.

His father bent over and Peter saw his fingers working on the right knee joint. His voice was muffled as he worked.
"How does your brain feel?"
He didn't answer. The red eyes glinted.
"Peter," his fatner said urgently.
He didn't answer. He stared at the dark trees that lined Eleventh Street.
"You can get up now," his father said. "No."
"Peter, not here."
"I'm not getting up," the machine said.
"Peter, please," his mother begged.
"No, I can't, mother, I can't."
Spoken like a hideous metal monstor.
"Peter, you can't stay there."
The memory of all the years before stopped him. He would not get up.
"Let them find me," he said, "Maybe they'll destroy me."

His father looked around with worried eyes. And, suddenly, Peter realized that no one knew of this but his parents. If the board found out, his father would be pilloried. He found the idea pleased him.

But his wired reflexes were too slow to stop his father from placing hands on his chest and pulling open a small hinged door.

Before he could swing one of his clumsy arms, his father flicked his mechanism and, abruptly, the arm stopped as the connection between his will and the machinery was broken.

Doctor Dearfield pushed a button and the robot stood and walked stiffly to the car. He followed behind, his frail chest laboring for breath. He kept thinking what a horrible mistake he had made to listen to his wife. Why did he always let her alter his decisions?

Why had he allowed her to control their son when he lived? Why had he let her convince him to bring their son back when he had made a last, desperate attempt to escape?

His robot son sat in the back seat stiffly. Doctor Dearfield slid into the car beside his wife.
"Now he's perfect," he said, "Now you can lead him around as you please. A pity 'he wasn't so agreeable in life. Almost as pliable, almost as machinelike. But not quite. He didn't do everything you wanted him to."

S$\mathbf{S H E}^{H E}$ looked at her husband with surprise, glancing back at the robot as if afraid it might hear. It was her son's mind. And she had said a man was his mind.

The sweet, unsullied mind of her son! The mind she had always protected and sheltered from the ugly taint of worldliness. He was her life. She did not feel guilty for having him brought back. If only he weren't so. . . .
"Are you satisfied, Ruth?" asked her husband, "Oh, don't worry; he can't hear me."

But he could. He sat there and listened. Peter's brain heard.
"You're not answering me," said Doctor Dearfield, starting the motor.
"I don't want to talk about it."
"You have to talk about it," he said, "What have you planned for him now? You always made it a point to live his life before."
"Stop it, John."
"No, you've broken my silence, Ruth. I must have been insane to listen to you. Insane to let myself get interested in such a . . . hideous project. To bring you back your dead son."
"Is it hideous that I love my son and want him with me?"
"It's hideous that you defy his last desire on Earth! To be dead and free of you and at peace at last."
"Free of me, free of me," she screamed angrily, "Am I such a monster?"
"No," he said quietly, "But, with my help, you've certainly made our son a monster."

She did not speak. Peter saw her lips draw into a thin line.
"What will he do now?" asked her husband, "Go back to his classes? Teach sociology?"
"I don't know," she murmured.
"No, of course you don't. All you ever worried about was his being near you."

Doctor Dearfield turned the corner. He started up College Avenue.
"I know," he said, "We'll use him for an ashtray."
"John, stop it!"

She slumped forward and Peter heard her sobbing. He watched his mother with the red glass eyes of the machine he lived in.
"Did you . . . h-have to make him so
. . . so. . . ."
"So ugly ?"
"I. . . "
"Ruth, I told you what he'd look like. You just glossed over my words. All you could think of was getting your claws into him again."
"I didn't, I didn't," she sobbed.
"Did you ever respect a single one of his wishes?" her husband asked. "Did you? When he wanted to write, would you let him? No! You scoffed. Be practical, darling, you said. It's a pretty thought but we must be practical. Your father will get you a nice position with the college."

She shook her head silently.
"When he wanted to go to New York to live, would you let him? When he wanted to marry Elizabeth, would you let him?"

The angry words of his father faded as Peter looked out at the dark campus on his right. He was thinking, dreaming, of a pretty, dark-haired girl in his class. Remembering the day she'd spoken to him. Of the walks, the concerts, the soft, exciting kisses, the tender, shy caresses.

If only he could sob, cry out.
But a machine could not cry and it had no heart to break.
"Year after year," his father's voice fluttered back into hearing, "Turning him into a machine even then."

And Peter's mind pictured the long, elliptical walk around the campus. The walk he had so many times trudged to and from classes, briefcase gripped firmly in his hand. The dark gray hat on his balding head, balding at twenty-eight! The heavy overcoat in winter, the gray tweed suit in fall and spring. The lined seersucker during the hot months when he taught summer session.

Nothing but depressing days that stretched on endlessly.

Until he had ended them.
"He's still my son," he heard his mother saying.
"Is he?" mocked his father.
"It's still his mind, and a man's mind is everything."
"What about his body ?" her husband persisted, "What about his hands? They are just two pronged claws like hooks. Will you hold his hands as you used to? Those riveted metal arms-would you let him put those arms around you and embrace you?"
"John, please_-"
"What will you do with him? Put him in a closet? Hide him when guests come? What will you-"
"I don't want to talk about it!"
"You must talk about it! What about his face? Can you kiss that face?"

She trembled and, suddenly, her husband drove the car to the curb and stopped it with a jerk. He grabbed her shoulder and turned her forcibly around.
"Look at him! Can you kiss that metal face? Is it your son, is that your son?"

She could not look. And it was the final blow at Peter's brain. He knew that she had not loved his mind, his personality, his character at all. It was the living person she had doted upon, the body she could direct, the hands she could hold-the responses she could control.
"You never loved him," his father said cruelly. "You possessed him. You destroyed him."
"Destroyed!" she moaned in anguish.
And then they both spun around in horror. Because the machine had said, "Yes. Destroyed."

His father was staring at him.
"I thought . . ." he said, thinly.
"I am now, in objective form, what I have always been," said the robot. "A well-controlled machine."

The throat gears made sound.
"Mother, take home your little boy," said the machine.

But Doctor Dearfield had already turned the car around and was heading back.


ZENO was the first great scientist," Professor Hardy stated, looking sternly around his classroom. "For example, take his paradox of the frog and the well. As Zeno showed, the frog will never reach the top of the well. Each jump is half the previous jump; a small but very real margin always remains for him to travel."

There was silence, as the afternoon Physics 3-A Class considered

Hardy's oracular utterance. Then, in the back of the room, a hand slowly went up.

Hardy stared at the hand in disbelief. "Well?" he said. "What is it, Pitner?"
"But in Logic we were told the frog would reach the top of the well. Professor Grote said-"
"The frog will not!"
"Professor Grote says he will."
Hardy folded his arms. "In this class the frog will never reach the top of the well. I have examined the evidence myself. I am satisfied that he will always be a small distance away. For example, if he jumps-"

The bell rang.
All the students rose to their feet and began to move toward the door. Professor Hardy stared after them, his sentence half-finished. He rubbed his jaw with displeasure, frowning at the horde of young men and women with their bright, vacant faces.

When the last of them had gone, Hardy picked up his pipe and went out of the room, into the hall. He looked up and down. Sure enough, not far off was Grote, standing by the drinking fountain, wiping his chin.
"Grote!" Hardy said. "Come here!"
Professor Grote looked up, blinking. "What?"
"Come here." Hardy strode up to him. "How dare you try to teach Zeno? He was a scientist, and as such he's my property to teach, not yours. Leave Zeno to me!"
"Zeno was a philosopher." Grote stared up indignantly at Hardy. "I know what's on your mind. It's that paradox about the frog and the well. For your information, Hardy, the frog will easily get out. You've been misleading your students. Logic is on my side."
"Logic, bah!" Hardy snorted, his eyes blazing. "Old dusty maxims. It's obvious that the frog is trapped forever, in an eternal prison and can never get away!"
"He will escape."
"He will not."
"Are you gentlemen quite through?" a calm voice said. They turned quickly around. The Dean was standing quietly behind them, smiling gently. "If you are through, I wonder if you'd mind coming into my office for a moment." He nodded toward his door. "It won't take too long."

Grote and Hardy looked at each other. "See what you've done?" Hardy whispered, as they filed into the Dean's office. "You've got us into trouble again."
"You started it-you and your frog!"
"Sit down, gentlemen." The Dean indicated two stiff-backed chairs. "Make yourselves comfortable. I'm sorry to trouble you when you're so busy, but I do wish to speak to you for a moment." He studied them moodily. "May I ask what is the nature of your discussion this time?"
"It's about Zeno," Grote murmured.
"Zeno?"
"The paradox about the frog and the well."
"I see." The Dean nodded. "I see. The frog and the well. A two-thousand-year-old saw. An ancient puzzle. And you two grown men stand in the hall arguing like a-"
"The difficulty," Hardy said, after a time, "is that no one has ever performed the experiment. The paradox is a pure abstraction."
"Then you two are going to be the first to lower the frog into his well and actually see what happens."
"But the frog won't jump in conformity to the conditions of the paradox."
"Then you'll have to make him, that's all. I'll give you two weeks to set up control conditions and determine the truth of this miserable puzzle. I want no more wrangling, month after month. I want this settled, once and for all."

Hardy and Grote were silent.
"Well, Grote," Hardy said at last, "let's get it started."
"We'll need a net," Grote said.
"A net and a jar." Hardy sighed.
"We might as well be at it as soon as possible."

THE "Frog Chamber," as it got to be called, was quite a project. The University donated most of the basement to them, and Grote and Hardy set to work at once, carrying parts and materials downstairs. There wasn't a soul who didn't know about it, before long. Most of the science majors were on Hardy's side; they formed a Failure Club and denounced the frog's efforts. In the philosophy and art departments there was some agitation for a Success Club, but nothing ever came of it.

Grote and Hardy worked feverishly on the project. They were absent from their classes more and more of the time, as the two weeks wore on. The Chamber itself grew and developed; resembling more and more a long section of sewer pipe running the length of the basement. One end of it disappeared into a maze of wires and tubes; at the other there was a door.

One day when Grote went downstairs there was Hardy already, peering into the tube.
"See here," Grote said, "we agreed to keep hands off unless both of us were present."
"I'm just looking inside. It's dark in there." Hardy grinned. "I hope the frog will be able to see."
"Well, there's only one way to go."
Hardy lit his pipe. "What do you think of trying out a sample frog? I'm itching to see what happens."
"It's too soon." Grote watched nervously as Hardy searched about for his jar. "Shouldn't we wait a bit?"
"Can't face reality, eh? Here, give me a hand."

There was a sudden sound, a scraping at the door. They looked up. Pitner was standing there, looking curiously into the room, at the elongated Frog Chamber.
"What do you want?" Hardy said. "We're very busy."
"Are you going to try it out?" Pinter
came into the room. "What are all the coils and relays for?"
"It's very simple," Grote said, beaming. "Something I worked out myself. This end here-"
"I'll show him," Hardy said. "You'll only confuse him. Yes, we were about to run the first trial frog. You can stay, boy, if you want." He opened the jar and took a damp frog from it. "As you can see, the big tube has an entrance and an exit. The frog goes in the entrance. Look inside the tube, boy. Go on."

Pitner peered into the open end of the tube. He saw a long black tunnel. "What are the lines?"
"Measuring lines. Grote, turn it on."
The machinery came on, humming softly. Hardy took the frog and dropped him into the tube. He swung the metal door shut and snapped it tight. "That's so the frog won't get out again, at this end."
"How big a frog were you expecting?" Pitner said. "A full-grown man could get into that."
"Now watch." Hardy turned the gas cock up. "This end of the tube is warmed. The heat drives the frog up the tube. We'll watch through the window."

They looked into the tube. The frog was sitting quietly in a little heap, staring sadly ahead.
"Jump, you stupid frog," Hardy said. He turned the gas up.
"Not so high, you maniac!" Grote shouted. "Do you want to stew him?"
"Look!" Pitner cried. "There he goes."

The frog jumped. "Conduction carries the heat along the tube bottom," Hardy explained. "He has to keep on jumping to get away from it. Watch him go."

Suddenly Pitner gave a frightened rattle. "My God, Hardy. The frog has shrunk. He's only half as big as he was."

Hardy beamed. "That is the miracle. You see, at the far end of the tube there
is a force field. The frog is compelled to jump toward it by the heat. The effect of the field is to reduce animal tissue according to its proximity. The frog is made smaller the farther he goes."
"Why?"
"It's the only way the jumping span of the frog can be reduced. As the frog leaps he diminishes in size, and hence each leap is proporttonally reduced. We have arranged it so that the diminution is the same as in Zeno's paradox."
"But where does it all end?"
"That," Hardy said, "is the question to which we are devoted. At the far end of the tube there is a photon beam which the frog would pass through, if he ever got that far. If he could reach it, he would cut off the field."
"He'll reach it," Grote muttered.
"No. He'll get smaller and smaller, and jump shorter and shorter. To him, the tube will lengthen more and more, endlessly. He will never get there."

They glared at each other. "Don't be so sure," Grote said.

Suddenly Pitner gave a cry. "Look!"

THEY peered through the window into the tube. The frog had gone quite a distance up. He was almost invisible, now, a tiny speck no larger than a fly, moving imperceptibly along the tube. He became smaller. He was a pin point. He disappeared.
"Gosh," Pitner said.
"Pitner, go away," Hardy said. He rubbed his hands together. "Grote and I have things to discuss."

He locked the door after the boy.
"All right," Grote said. "You designed this tube. What became of the frog?"
"Why, he's still hopping, somewhere in a sub-atomic world."
"You're a swindler. Someplace along that tube the frog met with misfortune."
"Well," Hardy said. "If you think that, perhaps you should inspect the tube personally."
"I believe I will. I may find a-a trap door."
"Suit yourself," Hardy said, grinning. He turned off the gas and opened the big metal door.
"Give me the flashlight," Grote said. Hardy handed him the flashlight and he crawled into the tube, grunting. His voice echoed hollowly. "No tricks, now."

Hardy watched him disappear. He bent down and looked into the end of the tube. Grote was halfway down, wheezing and struggling. "What's the matter?" Hardy said.
"Too tight. . . ."
"Oh?" Hardy's grin broadened. He took his pipe from his mouth and set it on the table. "Well, maybe we can do something about that."

He slammed the metal door shut. He hurried to the other end of the tube and snapped the switches. Tubes lit up, relays clicked into place.

Hardy folded his arms. "Start hopping, my dear frog," he said. "Hop for all you're worth."

He went to the gas cock and turned it on.

IT WAS very dark. Grote lay for a long time without moving. His mind was filled with drifting thoughts. What was the matter with Hardy? What was he up to? At last he pulled himself onto his elbows. His head cracked against the roof of the tube.

It began to get warm. "Hardy!" His voice thundered around him, loud and panicky. "Open the door. What's going on?"

He tried to turn around in the tube, to reach the door, but he couldn't budge. There was nothing to do but go forward. He began to crawl, muttering under his breath. "Just wait, Hardy. You and your jokes. I don't see what you expect to-"

Suddenly the tube leaped. He fell, his chin banging against metal. He blinked. The tube had grown; now there was more than enough room. And his clothing! His shirt and pants were like a tent around him.
"Oh, heavens," Grote said in a tiny
voice. He rose to his knees. Laboriously, he turned around. He pulled himself back through the tube the way he had come, toward the metal door. He pushed against it, but nothing happened. It was now too large for him to force.
He sat for a long time. When the metal floor under him became too warm he crawled reluctantly along the tube to a cooler place. He curled himself up and stared dismally into the darkness. "What am I going to do?" he asked himself.

After a time a measure of courage returned to him. "I must think logically. I've already entered the force field once, therefore I'm reduced in size by onehalf. I must be about three feet high. That makes the tube twice as long."

He got out the flashlight and some paper from his immense pocket and did some figuring. The flashlight was almost unmanageable.

Underneath him the floor became warm. Automatically he shifted a little up the tube to avoid the heat. "If I stay here long enough," he murmured, "I might be-"

The tube leaped again, rushing off in all directions. He found himself floundering in a sea of rough fabric, choking and gasping. At last he struggled free
"One and a half feet," Grote said, staring around him. "I don't dare move any more, not at all."

But when the floor heated under him he moved some more. "Three quarters of a foot." Sweat broke out on his face. "Three quarters of one foot." He looked down the tube. Far, far down at the end was a spot of light, the photon stream crossing the tube. If he could reach it, if only he could reach it!

He meditated over his figures for a time. "Well," he said at last, "I hope I'm correct. According to my calculations I should reach the beam of light in about nine hours and thirty minutes, if I keep walking steadily." He took a deep breath and lifted the flashlight to his shoulder.
"However," he murmured, "I may be
rather small by that time. . . ." He started walking, his chin up.

PROFESSOR HARDY turned to Pitner. "Tell the class what you saw this morning."

Everyone turned to look. Pitner swallowed nervously. "Well, I was downstairs in the basement. I was asked in to see the Frog Chamber. By Professor Grote. They were going to start the experiment."
"What experiment do you refer to?"
"The Zeno one," he explained nervously. "The frog. He put the frog in the tube and closed the door. And then Professor Grote turned on the power."
"What occurred?"
"The frog started to hop. He got smaller."
"He got smaller, you say. And then what?"
"He disappeared."
Professor Hardy sat back in his chair. "The frog did not reach the end of the tube, then?"
"No."
"That's all." There was a murmuring from the class. "So you see, the frog did not reach the end of the tube, as expected by my colleague, Professor Grote. He will never reach the end. Alas, we shall not see that unfortunate frog again."

There was a general stir. Hardy tapped with his pencil. He lit his pipe and puffed calmly, leaning back in his chair. "This experiment was quite an awakener to poor Grote, I'm afraid. He has had a blow of some unusual propertion. As you may have noticed, he hasn't appeared for his afternoon classes. Professor Grote, I understand, hás decided to go on a long vacation to the mountains. Perhaps after he has had time to rest and enjoy himself, and to for-get-"

Grote winced. But he kept on walking. "Don't get frightened," he said to himself. "Keep on."

The tube jumped again. He staggered. The flashlight crashed to the floor and
went out. He was alone in an enormous cave, an immense void that seemed to have no end, no end at all.

He kept walking.
After a time he began to get tired again. It was not the first time. "A rest wouldn't do any harm." He sat down. The floor was rough under him, rough and uneven. "According to my figures it will be more like two days, or so. Perhaps a little longer. . . ."

He rested, dozing a little. Later on he began to walk again. The sudden jumping of the tube had ceased to frighten him; he had grown accustomed to it. Sooner or later he would reach the photon beam and cut through it. The force field would go off and he would resume his normal size. Grote smiled a little to himself. Wouldn't Hardy be surprised to-

He stubbed his toe and fell, headlong into the blackness around him. A deep fear ran through him and he began to tremble. He stood up, staring a round him.

## Which way?

"My God," he said. He bent down and touched the floor under him. Which way? Time passed. He began to walk slowly, first one way, then another. He could make out nothing, nothing at all.

Then he was running, hurrying through the darkness, this way and that, slipping and falling. All at once he staggered. The familiar sensation : he breathed a sobbing sigh of relief. He was moving in the right direction! He began to run again, calmly, taking deep breaths, his mouth open. Then once more the staggering shudder as he shrank down another notch; but he was going the right way. He ran on and on.

And as he ran the floor became rougher and rougher. Soon he was forced to stop, falling over boulders and rocks. Hadn't they smoothed the pipe down? What had gone wrong with the sanding, the steel wool-
"Of course," he murmured. "Even the surface of a razor blade . . . if one is small. . . ."

He walked ahead, feeling his way along. There was a dim light over everything, rising up from the great stones around him, even from his own body. What was it? He looked at his hands. They glittered in the darkness.
"Heat," he said. "Of course. Thanks, Hardy." In the half light he leaped from stone to stone. He was running across an endless plain of rocks and boulders, jumping like a goat, from crag to crag. "Or like a frog," he said. He jumped on, stopping once in a while for breath. How long would it be? He looked at the size of the great blocks of ore piled up around him. Suddenly a terror rushed through him.
"Maybe I shouldn't figure it out," he said. He climbed up the side of one towering cliff and leaped across to the other side. The next gulf was even wider. He barely made it, gasping and struggling to catch hold.

He jumped endlessly, again and again. He forgot how many times.

He stood on the edge of a rock and leaped.

Then he was falling, down, down, into the cleft, into the dim light. There was no bottom. On and on he fell.

Professor Grote closed his eyes. Peace came over him, his tired body relaxed.
"No more jumping," he said, drifting down, down. "A certain law regarding falling bodies . . . the smaller the body the less the effect of gravity. No wonder bugs fall so lightly . . . certain characteristics. . . ."

He closed his eyes and allowed the darkness to take him over, at last.

AND so," Professor Hardy said, "we can expect to find that this experiment will go down in science as-"

He stopped, frowning. The class was staring toward the door. Some of the students were smiling, and one began to laugh. Hardy turned to see what it was.
"Shades of Charles Fort," he said.
A frog came hopping into the room.
Pitner stood up. "Professor," he said excitedly. "This confirms a theory I've
worked out. The frog became so reduced in size that he passed through the spaces-"
"What?" Hardy said. "This is another frog."
"-through the spaces between the molecules which form the floor of the Frog Chamber. The frog would then drift slowly to the floor, since he would be proportionally less affected by the law of acceleration. And leaving the force field, he would regain his original size."

Pitner beamed down at the frog as the frog slowly made his way across the room.
"Really," Professor Hardy began. He sat down at his desk weakly. At that moment the bell rang, and the students began to gather their books and papers together. Presently Hardy found himself alone, staring down at the frog. He shook his head. "It can't be," he murmured. "The world is full of frogs. It can't be the same frog."

A student came up to the desk. "Professor Hardy-"

Hardy looked up.
"Yes? What is it?"
"There's a man outside in the hall wants to see you. He's upset. He has a blanket on."
"All right," Hardy said. He sighed and got to his feet. At the door he paused, taking a deep breath. Then he set his jaw and went out into the hall.

Grote was standing there, wrapped in a red-wool blanket, his face flushed with excitement. Hardy glanced at him apologetically.
"We still don’t know !" Grote cried.
"What?" Hardy murmured. "Say, er, Grote-"
"We still don't know whether the frog would have reached the end of the tube. He and I fell out between the molecules. We'll have to find some other way to test the paradox. The Chamber's no good."
"Yes, true," Hardy said. "Say, Grote-"
"Let's discuss it later," Grote said. "I have to get to my classes. I'll look you up this evening."

And he hurried off down the hall clutching his blanket.

## $\star$ <br> Star-Ment

Tearing the wide white sky asunder,
He vanished into the blue;
Leaving a sonic roil of thunder
To lash the vacuum he drew. . . .
Curved like a shaft of radiant light,
Curved was the stairway he traveled,
Curved like a curving arrow in flight,
Curved, as if guide-vanes were raveled. . . .
Strong was the song of a siren sun-
None saw the flame-flaring ember.
Only the stars know the voyage is done;
Maybe the stars will remember.
—by A. Kulik


# The GNARIY MAN <br> a novelet by 

## L. SPRAGUE De CAMP

## Who would have thought that the Coney Island ape-man could be a genuine Neanderthal-50,000 years of age?

IDR. MATILDA SADDLER first saw the gnarly man on the evening of June 14th, 1956, at Coney Island. The spring meeting of the Eastern Section of the American Anthrouological Association had broken up, and Dr. Saddler had had dinner with two of her professional colleagues, Blue of Columbia and Jeffcott of Yale. She mentioned that she had never visited Coney Island, and meant to go there that evening. She urged Blue and Jeffcott to come along, but they begged off.

Watching Dr. Saddler's retreating back, Blue of Columbia crackled: "The Wild Woman from Wichita. Wonder if she's hunting another husband?' He was a thin man with a small gray beard and a who-the-hell-are-you-sir expression.
"How many has she had?" asked Jeffcott of Yale.
"Three to date. Don't know why anthropologists lead the most disorderly private lives of any scientists. Must be that they study the customs and morals


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of all these different peoples, and ask themselves, 'If the Eskimos can do it why can't we?' I'm old enough to be safe, thank God."
"I'm not afraid of her," said Jeffcott. He was in his early forties and looked like a farmer uneasy in store-clothes. "I'm so very thoroughly married."
"Yeah? Ought to have been at Stanford a few years ago, when she was there. It wasn't safe to walk across the campus, with Tuthill chasing all the females and Saddler all the males."

Dr. Saddler had to fight her way off the subway train, as the adolescents who infest the platform of the B.M.T.'s Stillwell Avenue Station are probably the worst-mannered people on earth, possibly excepting the Dobu Islanders of the Western Pacific. She didn't much mind. She was a tall, strongly-built woman in her late thirties, who had been kept in trim by the outdoor rigors of her profession. Besides, some of the inane remarks in Swift's paper on acculturation among the Arapaho Indians had
gotten her fighting blood up.
Walking down Surf Avenue toward Brighton Beach, she looked at the concessions without trying them, preferring to watch the human types that did and the other human types that took their money. She did try a shooting gallery, but found knocking the owls off their perch with a .22 too easy to be much fun. Long-range work with an army rifle was her idea of shooting.

The concession next to the shooting gallery would have been called a sideshow if there had been a main show for it to be a side-show to. The usual lurid banner proclaimed the uniqueness of the two-headed calf, the bearded woman, Arachne the spider-girl, and other marvels. The pièce de résistance was UngoBungo, the ferocious ape-man, captured in the Congo at the cost of twentyseven lives. The picture showed an enormous Ungo-Bungo squeezing a hapless Negro in each hand, while others sought to throw a net over him.

Although Dr. Saddler knew perfectly well that the ferocious ape-man would turn out to be an ordinary Caucasian with false hair on his chest, a streak of whimsicality impelled her to go in. Perhaps, she thought, she could have some fun with her colleagues about it.

The spieler went through his leatherlunged harangue. Dr. Saddler guessed from his expression that his feet hurt. The tatooed lady didn't interest her, as her decorations obviously had no cultural significance, as they have among the Polynesians. As for the ancient Mayan, Dr. Saddler thought it in questionable taste to exhibit a poor microcephalic idiot that way. Professor Yogi's legerdemain and fire-eating weren't bad.

ACURTAIN hung in front of UngoBungo's cage. At the appropriate moment there were growls and the sound of a length of chain being slapped against a metal plate. The spieler wound up on a high note: ". . . ladies and gentlemen, the one and only Ungo-Bungo!"

The curtain dropped.
The ape-man was squatting at the back of his cage. He dropped his chain, got up, and shuffled forward. He grasped two of the bars and shook them. They were appropriately loose and rattled alarmingly. Ungo-Bungo snarled at the patrons, showing his even yellow teeth.

Dr. Saddler stared hard. This was something new in the ape-man line. Ungo-Bungo was about five feet three, but very massive, with enormous hunched shoulders. Above and below his blue swimming trunks thick, grizzled hair covered him from crown to ankle. His short, stout-muscled arms ended in big hands with thick gnarled fingers. His neck projected slightly forward, so from the front he seemed to have but little neck at all.

His face-well, thought Dr. Saddler, she knew all the living races of men, and all the types of freak brought about by glandular maladjustment, and none of them had a face like that. It was deeply lined. The forehead between the short scalp-hair and the brows on the huge super-orbital ridges receded sharply. The nose, though wide, was not apelike; it was short and hooked. The face ended in a long upper lip and a retreating chin, and the yellowish skin apparently belonged to Ungo-Bungo.

The curtain was whisked up again.
Dr. Saddler went out with the others, but paid another dime, and soon was back inside. She paid no attention to the spieler, but got a good position in front of Ungo-Bungo's cage before the rest of the crowd arrived.

Ungo-Bungo repeated his performance with mechanical precision. Dr. Sadler noticed that he limped a little as he came forward to rattle the bars, and that the skin under his mat of hair bore several big whitish scars. The last joint of his left ring-finger was missing. She noted certain things about the proportions of his shin and thigh, of his forearm and upper arm, and his big splay feet.

Dr. Saddler paid a third dime. An Idea was knocking at her mind somewhere, trying to get in ; either she was crazy or physical anthropology was haywire or-something. But she knew that if she did the sensible thing, which was to go home, the idea would plague her from now on.

After the third performance she spoke to the spieler. "I think your Mr. UngoBungo used to be a friend of mine. Could you arrange for me to see him after he finishes his act?"

THE SPIELER checked his sarcasm. His questioner was so obviously not the sort of dame who asks to see guys after they finish side-show acts.
"Oh, him," he said. "Calls himself Gaffney-Clarence Aloysius Gaffney. That the guy you want?"
"Why, yes."
"Guess you can." He looked at his watch. "He's got four more turns to do before we close. I'll have to ask the boss." He popped through a curtain and called, "Hey, Morrie!" Then he was back. "It's okay. Morrie says you can wait in his office. Foist door to the right."

Morrie was stout, bald, and hospitable. "Sure, sure," he said, waving his cigar. "Glad to be of soivice, Miss Saddler. Chust a minute while I talk to Gaffney's manager." He stuck his head out. "Hey, Pappas! Lady wants to talk to your ape-man later. I meant lady. Okay." He returned to orate on the difficulties besetting the freak business. "You take this Gaffney, now. He's the best damn ape-man in the business; all that hair really grows outa him. And the poor guy really has a face like that. But do people believe it? No! I hear 'em going out, saying about how the hair is pasted on, and the whole thing is a fake. It's mortifying." He cocked his head, listening. "That rumble wasn't no rollycoaster; it's gonna rain. Hope it's over by tomorrow. You wouldn't believe the way rain can knock your receipts off. If you drew a coive, it would be like
this." He drew his fingers horizontally through space, jerking down sharply to indicate the effects of rain. "But as I said, people don't appreciate what you try to do for 'em. It's not just the money ; I think of myself as an ottist. A creative ottist. A show like this got to have a balance and proportion, like any other ott . . ."

It must have been an hour later when a slow deep voice at the door said, "Did somebody want to see me?"

The gnarly man was in the doorway. In street clothes, with the collar of his raincoat turned up and his hat brim pulled down, he looked more or less human, though the coat fitted his great sloping figure with a leather loop near the top end. A small dark man fidgeted behind him.
"Yeah," said Morrie, interrupting his lecture. "Clarence, this is Miss Saddler. Miss Saddler, this is Mister Gaffney, one of our outstanding creative ottists."
"Pleased to meetcha," said the gnarly man. "This is my manager, Mr. Pappas."

Dr. Saddler explained, and said she'd like to talk to Mr. Gaffney if she might. She was tactful; you had to be to pry into the private affairs of Naga headhunters, for instance. The gnarly man said he'd be glad to have a cup of coffee with Miss Saddler; there was a place around the corner that they could reach without getting wet.

As they started out, Pappas followed, fidgeting more and more. The gnarly man said, "Oh, go home to bed, John. Don't worry about me." He grinned at Dr. Saddler. The effect would have been unnerving to anyone but an anthropologist. "Every time he sees me talking to anybody, he thinks it's some other manager trying to steal me." He spoke American, with a suggestion of Irish brogue in the lowering of the vowels in words like "man" and "talk." "I made the lawyer who drew up our contract fix it so it can be ended on short notice."

Pappas departed, still looking suspicious. The rain had practically ceased.

The gnarly man stepped along smartly despite his limp. A woman passed with a fox terrier on a leash. The dog sniffed in the direction of the gnarly man, and then to all appearances went crazy, yelping and slavering. The gnarly man shifted his grip on the massive stick and said quietly, "Better hang on to him, ma'am." The woman departed hastily. "They just don't like me," commented Gaffney. "Dogs, that is."

T
'HEY found a table and ordered their coffee. When the gnarly man took off his raincoat, Dr. Saddler became aware of a strong smell of cheap perfume. He got out a pipe with a big knobby bowl. It suited him, just as the walking-stick did. Dr. Saddler noticed that the deep eyes under the beetling arches were light hazel.
"Well?" he said in his rumbling drawl.

She began her questions.
"My parents were Irish," he answered. "But I was born in South Bos-ton-let's see-forty-six years ago. I can get you a copy of my birth certificate. Clarence Aloysius Gaffney, May 2, 1910." He seemed to get some secret amusement out of that statement.
"Were either of your parents of your somewhat unusual physical type?"

He paused before answering. He always did, it seemed. "Uh-huh. Both of 'em. Gland, I suppose."
"Were they both born in Ireland?"
"Yep. County Sligo." Again that mysterious twinkle.

She paused. "Mr. Gaffney, you wouldn't mind having some photographs and measurements made, would you? You could use the photographs in your business."
"Maybe." He took a sip. "Ouch! Gazooks, that's hot!"
"What?"
"I said the coffee's hot."
"I mean before that."
The gnarly man looked a little embarrassed. "Oh, you mean the 'gazooks'? Well, [-uh-once knew a man who
used to say that."
"Mr. Gaffney, I'm a scientist, and I'm not trying to get anything out of you for my own sake. You can be frank with me."

There was something remote and impersonal in his stare that gave her a slight spinal chill. "Meaning that you think I haven't been frank with you so far?"
"Yes. When I saw you I decided that there was something extraordinary in your background. I still think there is. Now, if you think I'm crazy, say so and we'll drop the subject. But I want to get to the bottom of this."

He took his time about answering. "That would depend." There was another pause. Then he said, "With your connections, do you know any first-class surgeons?"
"But-yes, I know Dunbar."
"The guy who wears a purple gown when he operates? The guy who wrote a book on 'God, Man, and the Universe'?"
"Yes. He's a good man, in spite of his theatrical mannerisms. Why? What would you want of him ?"
"Not what you're thinking. I'm satisfied with my-uh-unusual physical type. But I have some old injuriesbroken bones that didn't knit properly -that I want fixed up. He'd have to be a good man, though. I have a couple of thousand in the bank, but I know the sort of fees those guys charge. If you could make the necessary arrange-ments-"
"Why, yes, I'm sure I could. In fact I could guarantee it. Then I was right? You'll-" She hesitated.
"Come clean? Uh-huh. But remember, I can still prove I'm Clarence Aloysius if I have to."
"Who are you, then?"
Again there was a long pause. Then the gnarly man said, "Might as well tell you. As soon as you repeat any of it, you'll have put your professional reputation completely in my hands, remember."

## II

FIRST OFF, I wasn't born in Massachusetts. I was born on the upper Rhine, near Momenheim, and as nearly as I can figure out, about the year fifty thousand B. C."

Dr. Saddler wondered whether she'd stumbled on the biggest thing in anthropology or whether this bizarre man was making Baron Munchausen look like a piker.

He seemed to guess her thoughts. "I can't prove that, of course. But so long as you arrange about that operation, I don't care whether you believe me or not."
"But-but how?"
"I think the lightning did it. We were out trying to drive some bison into a pit. Well, this big thunderstorm came up, and the bison bolted in the wrong direction. So we gave up and tried to find shelter. And the next thing I knew I was lying on the ground with the rain running over me, and the rest of the clan standing around wailing about what had they done to get the stormgod sore at them, so he made a bull's-eye on one of their best hunters. They'd never said that about me before. It's funny how you're never appreciated while you're alive.
"But I was alive, all right. My nerves were pretty well shot for a few weeks, but otherwise I was all right except for some burns on the soles of my feet. I don't know just what happened, except I was reading a couple of years ago that scientists had located the machinery that controls the replacement of tissue in the medulla oblongata. I think maybe the lightning did something to my medulla to speed it up.. Anyway I never got any older after that. Physically, that is. And except for those broken bones I told you about. I was thirty-three at the time, more or less. We didn't keep track of ages. I look older now, because the lines in your face are bound to get sort of set after a few thousand years, and our hair was always gray at the ends."
"Then you're-you mean to say you're
-you're trying to tell me you're-"
"A Neanderthal man? Homo neanderthalensis? That's right . . . ."

Matilda Saddler's hotel room was a bit crowded, with the gnarly man, the frosty Blue, the rustic Jeffcott, Dr. Saddler herself, and Harold McGannon the historian. This McGannon was a small man, very neat and pink-skinned. He looked more like a New York Central director than a professor. Just now his expression was one of fascination. Dr. Saddler looked full of pride; Professor Jeffcott looked interested but puzzled; Dr. Blue looked bored. He hadn't wanted to come in the first place. The gnarly man, stretched out in the most comfortable chair and puffing his overgrown pipe, seemed to be enjoying himself.

McGannon was asking a question. "Well, Mr.-Gaffney? I suppose that's your name as much as any."
"You might say so," said the gnarly man. "My original name was something like Shining Hawk. But I've gone under hundreds of names since then. If you register in a hotel as 'Shining Hawk' it's apt to attract attention. And I try to avoid that."
"Why ?" asked McGannon.
The gnarly man looked at his audience as one might look at wilfully stupid children. "I don't like trouble. The best way to keep out of trouble is not to attract attention. That's why I have to pull up stakes and move every ten or fifteen years. People might get curious as to why I never got any older."
"Pathological liar," murmured Blue. The words were barely audible, but the gnarly man heard them.
"You're entitled to your opinion, Dr. Blue," he said affably. "Dr. Saddler's doing me a favor, so in return I'm letting you all shoot questions at me. And I'm answering. I don't give a damn whether you believe me or not."

McGannon hastily threw in another question. "How is it that you have a birth certificate, as you say you have?"
"Oh, I knew a man named Clarence Gaffney once. He got killed by an automobile, and I took his name."
"Was there any reason for picking this Irish background?"
"Are you Irish, Dr. McGannon?"
"Not enough to matter."
"Okay. I didn't want to hurt any feelings. It's my best bet. There are real Irishmen with upper lips like mine."

Dr. Saddler broke in. "I meant to ask you, Clarence." She put a lot of warmth into his name. "There's an argument as to whether your people interbred with mine, when mine overran Europe at the end of the Mousterian. It's been thought that the 'old black breed' of the west coast of Ireland might have a little Neanderthal blood."

C
LARENCE grinned slightly. "Well," $4_{\text {yes and no. There never was any back }}$ in the Stone Age, as far as I know. But those long-lipped Irish are my fault."
"How?"
"Believe it or not, in the last fifty centuries there have been some women of your species that didn't find me too repulsive. Usually there were no offspring. But in the sixteenth century I went to Ireland to live. They were burning too many people for witchcraft in the rest of Europe to suit me at that time. And there was a woman. The result this time was a flock of hybridscute little devils they were. So the 'old black breed' are my descendants."
"What did happen to your people?" asked McGannon. "Were they killed off?"

The gnarly man shrugged. "Some of them. We weren't at all warlike. But then the tall ones, as we called them, weren't either. Some of the tribes of the tall onas looked on us as legitimate prey, but most of them let us severely alone. I guess they were almost as scared of us as we were of them. Savages as primitive as that are really pretty peaceable people. You have to work so hard, and there are so few of you, that there's no object in fighting wars. That comes later, when you get agriculture and livestock, so you have something worth stealing.
"I remember that a hundred years after the tall ones had come, there were still Neanderthalers living in my part of the country. But they died out. I think it was that they lost their ambition. The tall ones were pretty crude, but they were so far ahead of us that our things and our customs seemed silly. Finally we just stayed around and lived on what scraps we could beg from the tall ones' camps. You might say we died of an inferiority complex."
"What happened to you?" asked McGannon.
"Oh, I was a god among my own people by then, and naturally I represented them in dealings with the tall ones. I got to know the tall ones pretty well, and they were willing to put up with me after all my own clan were dead. Then in a couple of hundred years they'd forgotten all about my people, and took me for a hunchback or something. I got to be pretty good at flintworking, so I could earn my keep. When metal came in I went into that, and finally into blacksmithing. If you put all the horseshoes I've made in a pile, they'dwell, you'd have a damn big pile of horseshoes anyway."
"Did you limp at that time?" asked McGannon.
"Uh-huh. I busted my leg back in the Neolithic. Fell out of a tree, and had to set it myself, because there wasn't anybody around. Why ?"
"Vulcan," said McGannon softly.
"Vulcan?" repeated the gnarly man. "Wasn't he a Greek god or something?"
"Yes. He was the lame blacksmith of the gods."
"You mean you think that maybe somebody got the idea from me? That's an interesting idea. Little late to check up on it, though."

Blue leaned-forward, and said crisply, "Mr. Gaffney, no real Neanderthal man could talk as entertainingly as you do. That's shown by the poor development of the frontal lobes of the brain, and the attachments of the tongue muscles which they had."

THE GNARLY MAN shrugged again. "You can believe what you like. My own clan considered me pretty smart, and then you're bound to learn something in fifty thousand years."

Dr. Saddler said, "Tell them about your teeth, Clarence."

The gnarly man grinned. "They're false, of course. My own lasted a long time, but they still wore out somewhere back in the Paleolithic. I grew a third set, and they wore out too. So I had to invent soup."
"You what?" It was the usually taciturn Jeffcott.
"I had to invent soup to keep alive. You know, the bark dish-and-hot-stones method. My gums got pretty tough after a while, but they still weren't much good for chewing hard stuff. So after a few thousand years I got pretty sick of soup and mushy food generally.

When metal came in I began experimenting with false teeth. I finally made some pretty good ones. Amber teeth in copper plates. You might say I invented them too. I tried often to sell them, but they never really caught on until around 1750 a.d. I was living in Paris then, and I built up quite a little business before I moved on."

He pulled the handkerchief out of his breast pocket to wipe his forehead; Blue made a face as the wave of perfume reached him.
"Well, Mr. Cave-man," snapped Blue sarcastically, "how do you like our machine age?'

The gnarly man ignored the tone of the question. "It's not bad. Lots of interesting things happen. The main trouble is the shirts."
"Shirts?"
"Uh-huh. Just try to buy a shirt with a twenty neck and a twenty-nine sleeve. I have to order 'em special. It's almost as bad with hats and shoes. I wear an eight and a half hat and a thirteen shoe." He looked at his watch. "I've got to get back to Coney to work."

McGannon jumped up. "Where can I get in touch with you again, Mr. Gaff-
ney? There're lots of things I'd like to ask you."

The gnarly man told him. "I'm free mornings. My working hours are two to midnight on weekdays, with a couple of hours off for dinner. Union rules, you know."
"You mean there's a union for you show people?"
"Sure. Only they call it a guild. They think they're artists, you know."

Blue and Jeffcott watched the gnarly man and the historian walking slowly toward the subway together. Blue said, "Poor old Mac! I always thought he had sense. Looks like he's swallowed this Gaffney's ravings hook, line, and sinker."
"I'm not so sure," said Jeffcott, frowning. "There's something funny about the business. I'd like to get to the bottom of it."
"What?" barked Blue. "Don't tell me that you believe his story of being alive for fifty thousand years? A cave-man who uses perfume? Good God!"
"N-no," said Jeffcott. "Not the fifty thousand part. But I don't think it's a simple case of paranoia or plain lying either. And the perfume's quite logical, if he were telling the truth."
"Huh?"
"Body odor. Saddler told us how dogs hate him. He'd have a smell different from ours. We're so used to ours that we don't even know we have one, unless somebody goes without a bath for a couple of months. But we might notice his if he didn't disguise it."
Blue snorted. "You'll be believing him yourself in a minute. It's an obvious glandular case, and he's made up this story to fit. All that talk about not caring whether we believe him or not is just bluff. Come on, let's get some lunch. Say, did you see the way Saddler looked at him every time she said 'Clarence'? Wonder what she thinks she's going to do with him?"

Jeff cott thought. "I can guess. And if he is telling the truth, I think there's something in Deuteronomy against it."

## III

T
HE GREAT SURGEON made a point of looking like a great surgeon, to pince-nez and Vandyke. He waved the X-ray negatives at the gnarly man, pointing out this and that.
"We'd better take the leg first," he said. "Suppose we do that next Tuesday. When you've recovered from that we can tackle the shoulder."

The gnarly man agreed, and shuffled out of the little private hospital to where McGannon awaited him in his car. The gnarly man described the tentative schedule of operations, and mentioned that he had made arrangements to quit his job at the last minute. "Those two are the main thing," he said. "I'd like to try professional wrestling ágain some day, and I can't unless I get this shoulder fixed so I can raise my left arm over my head."
"What happened to it?" asked McGannon.

The gnarly man closed his eyes, thinking. "Let me see. I get things mixed up sometimes. People do when they're only fifty years old, so you can imagine what it's like for me.
"In Forty-two B.c. I was living with the Bituriges in Gaul. You remember that Caesar shut up WerkinghetorichVercingetorix to you-in Alesia, and the confederacy raised an army of relief under Caswallon."
"Caswallon?"
The gnarly man laughed shortly. "I meant Wercaswallon. Caswallon was a Briton, wasn't he? I'm always getting those two mixed up.
"Anyhow, I got drafted. That's all you can call it; I didn't want to go. It wasn't exactly my war. But they wanted me because I could pull twice as heavy a bow as anybody else.
"When the final attack on Caesar's ring of fortifications came, they sent me forward with some other archers to provide a covering fire for their infantry. At least that was the plan. Actually I never saw such a hopeless muddle in my
life. And before I even got within bowshot, I fell into one of the Roman's covered pits. I didn't land on the point of the stake, but I fetched up against the side of it and busted my shoulder. There wasn't any help, because the Gauls were too busy running away from Caesar's German cavalry to bother about wounded men. . . ."

The author of "God, Man, and the Universe" gazed after his departing patient. He spoke to his assistant. "What do you think of him?"
"I think it's so," said the assistant. "I looked over those X-rays pretty closely. That skeleton never belonged to a human being."
"Hmm, hmm," said Dunbar. "That's right, he wouldn't be human, would he? Hmm. You know, if anything happened to him-"

The assistant grinned understandingly. "Of course there's the S.P.C.A."
"We needn't worry about them. Hmm." He thought, "You've been slipping: nothing big in the papers for a year. But if you published a complete anatomical description of a Neanderthal man-or if you found out why his medulla functions the way it does-hmmof course it would have to be managed properly. . . .

LET'S have lunch at the Natural History Museum," said McGannon. "Some of the people there ought to know you."
"Okay," drawled the gnarly man. "Only I've still got to get back to Coney afterward. This is my last day. Tomorrow Pappas and I are going up to see our lawyer about ending our contract. It's a dirty trick on poor old John, but I warned him at the start that this might happen."
"I suppose we can come up to interview you while you're convalescing? Fine. Have you ever been to the Museum, by the way?"
"Sure," said the gnarly man. "I get around."
"What did you-ah-think of their
stuff in the Hall of the Age of Man?"
"Pretty good. There's a little mistake in one of those big wall paintings. The second horn on the woolly rhinoceros ought to slant forward more. I thought about writing them a letter. But you know how it is. They say 'Were you there?' and I say 'Uh-huh' and they say 'Another nut.' "
"How about the pictures and busts of Paleolithic men?"
"Pretty good. But they have some funny ideas. They always show us with skins wrapped around our middles. In summer we didn't wear skins, and in winter we hung them around our shoulders where they'd do some good.
"And then they show those tall ones that you call Cro-Magnon men cleanshaven. As I remember they all had whiskers. What would they shave with ?"
"I think." said McGannon. "that they leave the beards off the busts to-ahshow the shape of the chins. With the beards they'd all look too much alike."
"Is that the reason? They might say so on the labels." The gnarly man rubbed his own chin. such as it was. "I wish beards would come back into style. I look much more human with a beard. I got along fine in the sixteenth century when everybody had whiskers.
"That's one of the ways I remember when things happened, by the haircuts and whiskers that people had. I remember when a wagon I was driving in Milan lost a wheel and spilled flour bags from hell to breakfast. That must have been in the sixteenth century, before I went to Ireland, because I remember that most of the men in the crowd that collected had beards. Now-wait a minute-maybe that was the fourteenth century. There were a lot of beards then too."
"Why, why didn't you keep a diary?" asked McGannon with a groan of exasperation.

The gnarly man shrugged characteristically. "And pack around six trunks full of paper every time I moved? No, thanks."
"-ah-don't suppose you could give
me the real story of Richard III and the princes in the Tower?"
"Why should I? I was just a poor blacksmith or farmer or something most of the time. I didn't go around with the big-shots. I gave up all my ideas of ambition a long time before that. I had to, being so different from other people. As far as I can remember, the only real king I ever got a good look at was Charlemagne, when he made a speech in Paris one day. He was just a big tall man with Santa Claus whiskers and a squeaky voice."

## IV

NEXT MORNING McGannon and the gnarly man had a session with Svedberg at the Museum, after which McGannon drove Gaffney around to the lawyer's office, on the third floor of a seedy old office building in the West Fifties.

James Robinette looked something like a movie actor and something like a chipmunk. He glanced at his watch and said to McGannon, "This won't take long. If you'd like to stick around I'd be glad to have lunch with you." The fact was that he was feeling just a trifle quèasy about being left with this damn queer client, this circus freak or whatever he was.

When the business had been completed, and the gnarly man had gone off with his manager to wind up his affairs at Coney, Robinette said, "Whew! I thought he was a halfwit, from his looks but there was nothing half-witted about the way he went over those clauses. You'd have thought the damn contract was for building a subway system. What is he, anyhow?"

McGannon told him what he knew.
The lawyer's eyebrow went up. "Do you believe his yarn?"
"I do. So does Saddler. So does Svedberg up at the Museum. They're both topnotchers in their respective fields. Saddler and I have interviewed him, and Svedberg's examined him physically. But it's just opinion. Fred Blue still
swears it's a hoax or a case of some sort of dementia. And we can't prove anything."
"Why not?"
"Well-ah—how are you going to prove that he was or was not alive a hundred years ago? Take one case: Clarence says he ran a sawmill in Fairbanks, Alaska, in Nineteen-six and -seven, under the name of Michael Shawn. How are you going to find out whether there was a sawmill operator in Fairbanks at that time? And if you did stumble on a record of a Michael Shawn, how would you know whether he and Clarence were the same? There's not a chance in a thousand that there'd be a photograph or a detailed description you could check with. And you'd have an awful time trying to find anybody who remembered him at this late date.
"Then, Svedberg poked around Clarence's face, and said that no human being ever had a pair of zygomatic arches like that. But when I told Blue that, he offered to produce photographs of a human skull that did. I know what'll happen: Blue will say that the arches are practically the same, and Svedberg will say that they're obviously different. So there we'll be."

Robinette mused, "He does seem damned intelligent for an ape-man."
"He's not an ape-man, really. The Neanderthal race was a separate branch of the human stock; they were more primitive in some ways and more advanced in others than we are. Clarence may be slow, but he usually grinds out the right answer. I imagine that he was -ah-brilliant, for one of his kind, to begin with. And he's had the benefit of so much experience. He knows us! he sees through us and our motives." The little pink man puckered up his forehead. "I do hope nothing happens to him. He's carrying around a lot of priceless information in that big head of his. Simply priceless. Not much about war and politics; he kept clear of those as a matter of self-preservation. But little things, about how people lived and how they
thought thousands of years ago. He geta his periods mixed up sometimes, but he gets them straightened out if you give him time.
"I'll have to get hold of Pell, the linguist. Clarence knows dozens of ancient languages, such as Gothic and Gaulish. I was able to check him on some of them, like vulgar Latin; that was one of the things that convinced me. And there are archeologists and psychologists . . .
"If only something doesn't happen to scare him off. We'd never find him. I don't know. Between a man-crazy female scientist and a publicity-mad sur-geon-I wonder how it'll work out."

$T$HE GNARLY MAN innocently entered the waiting-room of Dunbar's hospital. He spotted the most comfortable chair, and settled luxuriously into it.

Dunbar stood before him. His keen eyes gleamed with anticipation behind their pince-nez. "There'll be a wait of about half an hour, Mr. Gaffney," he said. "We're all tied up now, you know. I'll send Mahler in; he'll see that you have anything you want." Dunbaris eyes ran lovingly over the gnarly man's stumpy frame. What fascinating secrets mightn't he discover once he got inside it?

Mahler appeared, a 'healthy looking youngster. Was there anything Mr. Gaffney would like? The gnarly man paused as usual to let his massive mental machinery grind. A vagrant impulse moved him to ask to see the instruments that were to be used on him.

Mahler had his orders, but this seemed a harmless enough request. He went and returned with a tray full of gleaming steel. "You see,"'he said. "These are called scalpels . .."

Presently the gnarly man asked, "What's this?" He picked up a peculiar looking instrument.
"Oh, that's the boss's own invention. For getting at the mid-brain."
"Mid-brain? What's that doing here?"
"Why, that's for getting at your-

That must be there by mistake-"
Little lines tightened around the queer hazel eyes. "Yeah?" He remembered the look Dunbar had given him, and Dunbar's general reputation. "Say, could I use your phone a minute?"
"Why-I suppose. What do you want to phone for?"
"I want to call my lawyer. Any objections?"
"No, of course not. But there isn't any phone here."
"What do you call that?" The gnarly man rose and walked toward the instrument in plain sight on the table. But Mahler was there before him, standing in front of it.
"This one doesn't work. It's being fixed."
"Can't I try it?"
"No, not till it's fixed. It doesn't work, I tell you."

The gnarly man studied the young physician for a few seconds. "Okay. I'll find one that does." He started for the door.
"Hey, you can't go out now!" cried Mahler.
"Can't I? Just watch me!"
"Hey!" It was a full-throated yell. Like magic more men in white coats appeared. Behind them was the great surgeon. "Be reasonable, Mr. Gaffney," he said. "There's no reason why you should go out now, you know. We'll be ready for you in a little while."
"Any reason why I shouldn't?" The gnarly man's big face swung on his thick neck, and his hazel eyes swiveled. All the exits were blocked. "I'm going."
"Grab him!" said Dunbar.
The white coats moved. The gnarly man got his hands on the back of a chair. The chair whirled, and became a dissolving blur as the men closed on him. Pieces of chair flew about the room, to fall with the dry sharp pink of short lengths of wood. When the gnarly man stopped swinging, having only a short piece of the chair-back left in each fist, one assistant was out cold. Another leaned whitely against the wall and
nursed a broken arm.
"Go on!" shouted Dunbar when he could make himself heard. The white wave closed over the gnarly man, then broke. The gnarly man was on his feet, and held Mahler by the ankles. He spread his feet and swung the shrieking Mahler like a club, clearing the way to the door. He turned, whirled Mahler around his head like a hammer-thrower, and let the now mercifully unconscious body fly. His assailants went down in a yammering tangle.

One was still up. Under Dunbar's urging he sprang after the gnarly man. The latter had gotten his stick out of the umbrella-stand in the vestibule. The knobby upper end went shoowh past the assistant's nose. The assistant jumped back and fell over one of the casualties. The front door slammed, and there was a deep roar of "Taxi!"
"Come on!" shrieked Dunbar. "Get the ambulance out!"

JAMES ROBINETTE sat in his office thinking the thoughts that lawyers do in moments of relaxation. He wondered about that damn queer client, that circus freak or whatever he was, who had been in a couple of days before with his manager.

There was a pounding of large feet in the corridor, a startled protest from Miss Spevak in the outer office, and the strange customer was before Robinette's desk, breathing hard.
"I'm Gaffney," he growled between gasps. "Remember me? I think they followed me down here. They'll be up any minute. I want your help."
"They? Who's they?" Robinette winced at the impact of the damned perfume.

The gnarly man launched into his misfortunes. He was going well when there were more protests from Miss Spevak, and Dr. Dunbar and four assistants burst into the office.
"He's ours!" said Dunbar, his glasses agleam.
"He's an ape-man," said the assistant
with the black eye.
"He's a dangerous lunatic," said the assistant with the cut lip.
"We've come to take him away," said the assistant with the torn pants.

The gnarly man spread his feet and gripped his stick like a baseball bat.

Robinette opened a desk drawer and got out a large pistol. "One move toward him and I'll use this. The use of extreme violence is justified to prevent commission of a felony-to wit, kidnaping."

The five men backed up a little. Dunbar said, "This isn't kidnaping. You can only kidnap a person, you know. He isn't a human being, and I can prove it."

The assistant with the black eye snickered. "If he wants protection, he better see a game-warden instead of a lawyer."
"That's what you think," said Robinette. "You aren't a lawyer. According to the law he's 'human. Even corporations, idiots, and unborn children are legally persons, and he's a damn sight more human than they are."
"Then he's a dangerous lunatic," said Dunbar.
"Yeah? Where's your commitment order? The only persons who can apply for one are close relatives, and public officials charged with the maintenance of order. You're neither."

Dunbar continued stubbornly. "He ran amuck in my hospital and nearly killed a couple of my men. I guess that gives us some rights."
"Sure," said Robinette. "You can step down to the nearest station and swear out a warrant." He turned to the gnarly man. "Shall we slap a civil suit on 'em, Gaffney ?"
"I'm all right," said Gaffney, his speech returning to its normal slowness. "I just want to make sure these guys don't pester me any more."
"Okay. Now listen, Dunbar. One hostile move out of you and we'll have a warrant out for you for false arrest, assault and battery, attempted kidnaping, criminal conspiracy, and disorderly con-
duct. We'll throw the book at you. And there'll be a suit for damages for sundry torts-to wit, assault, deprivation of civil rights, placing in jeopardy of life and limb, menace, and a few more I may think of later."
"You'll never make that stick," snarled Dunbar. "We have all the witnesses."
"Yeah? And wouldn't the great Evan Dunbar look sweet defending such actions? Some of the ladies who gush over your books might suspect that maybe you weren't such a damn knight in shining armor. We can make a prize monkey of you, and you know it."
"You're destroying the possibility of a great scientific discovery, you know, Robinette."
"To hell with that. My duty is to protect my client. Now beat it, all of you, before I call a cop." His left hand moved suggestively to the telephone.

Dunbar grasped at a last straw. "Hmm. Have you got a permit for that gun ?"
"Damn right. Want to see it?"
Dunbar sighed. "Never mind. You would have." His greatest opportunity for fame was slipping out of his fingers. He went toward the door.

The gnarly man spoke up. "If you don't mind, Dr. Dunbar. I left my hat at your place. I wish you'd send it to Mr. Robinette here. I have a hard time getting hats to fit me."

Dunbar looked at him silently and left with his cohorts.

## V

THE GNARLY MAN was giving the lawyer further details when the telephone rang. Robinette answered: "Yes . . . Saddler? Yes, he's here . . . Your Dr. Dunbar was going to murder him so he could dissect him . . . Okay." He turned to the gnarly man. "Your friend Dr. Saddler is looking for you. She's on her way up here."
"Herakles!" said Gaffney. "I'm go ing."
"Don't you want to see her? She was phoning from around the corner. If you go out now you'll run into her. How did she know where to call?"
"I gave her your number. I suppose she called the hospital and my boarding house, and tried you as a last resort. This door goes into the hall, doesn't it? Well, when she comes in the regular door I'm going out this one. And I don't want you saying where I've gone. Nice to have known you, Mr. Robinette."
"Why? What's the matter? You're not going to run out now, are you? Dunbar's harmless, and you've got friends. I'm your friend."
"You're durn tootin' I'm gonna run out. There's too much trouble. I've kept alive all these centuries by staying away from trouble. I let down my guard with Dr. Saddler, and went to the surgeon she recommended. First he plots to take me apart to see what makes me tick. If that brain-instrument hadn't made me suspicious I'd have been on my way to the alcohol jars by now. Then there's a fight, and it's just pure luck I didn't kill a couple of those internes or whatever they are and get sent up for manslaughter. Now Matilda's after me with a more than friendly interest. I know what it means when a woman looks at you that way and calls you 'dear.' I wouldn't mind if she"weren't a prominent person of the kind that's always in some sort of garboil. That would mean more trouble sooner or later. You don't suppose I like trouble, do you?"
"But look here, Gaffney, you're getting steamed up over a lot of damn-"
"Ssst!" The gnarly man took his stick and tiptoed over to the private entrance. As Dr. Saddler's clear voice sounded in the outer office, he sneaked out. He was closing the door behind him when the scientist entered the inner office.

Matilda Saddler was a quick thinker. Robinette hardly had time to open his
mouth when she flung herself at and through the private door with a cry of "Clarence!"

Robinette heard the clatter of feet on the stairs. Neither the pursued nor the pursuer had waited for the creaky elevator. Looking out the window he saw Gaffney leap into a taxi. Matilda Saddler sprinted after the cab, calling "Clarence! Come back!" But the traffic was light and the chase correspondingly hopeless.

THEY DID HEAR from the gnarly man once more. Three months later Robinette got a letter whose envelope contained, to his vast astonishment, ten ten-dollar bills. The single sheet was typed even to the signature.

## Dear Mr. Robinette:

I do not know what your regular fees are, but I hope that the enclosed will cover your services to me of last July.

Since leaving New York I have had several jobs. I pushed a hack (as we say) in Chicago, and I tried out as pitcher on a bush-league baseball team. Once I made a living by knocking over rabbits and things with stones, and I still throw fairly well. Nor am I bad at swinging a club like a baseball bat. But my lameness makes me too slow for a baseball career.

I now have a job whose nature I cannot disclose because I do not wish to be traced. You need pay no attention to the postmark; I am not living in Kansas City, but had a friend post this letter there.

Ambition would be foolish for one in my peculiar position. I am satisfied with a job that furnishes me with the essentials and allows me to go to an occasional movie, and a few friends with whom I can drink beer and talk.

I was sorry to leave New York without saying good-by to Dr. Harold McGannon, who treated me very nicely. I wish you would explain to him why I had to leave as I did. You can get in touch with him through Columbia University.

If Dunbar sent you my hat as I requested, please mail it to me, General Delivery, Kansas City, Mo. My friend will pick it up. There is no hat store in this town where I live that can fit me.

With best wishes, I remain,

> Yours sincerely,

Shining Hawk
alias Clarence Aloysius Gaffiney

# COSMIC ENCORES 

## (Continued from page 6)

five times the number of chlorophyll tablets normally recommended in order to see what effect it would have on the breath after eating asparagus, which has a characteristic, recognizable odor. The results were decidedly negative. They were equally negative on perspiration odors. It is to be hoped, concludes the British Medical Journal with characteristic understatement, that the wave of credulity concerning chlorophyll which has swept the United States, will not overwheln too many in Britain. Hear, hear.

Of course in science fiction, things are a little easier. The author is allowed some poetic license. If chlorophyll won't work he can invent something that will. But the thing which intrigues us-and which we hope you have noticed throughout this dithyrambic effusion-is that our industrial giants are apparently firm believers in science fiction. Works out fine that way.

## LETTERS FROM OUR READERS

## PROGRESS IS WONDERFUL

## by Ray Thompson

Dear FSam: Very interesting, that page of "News from the Science Front." The illos were all pretty good, with Virgil Finlay, of course, leading, with his illo for SHADOW OVER MARS. Liked the cover by Schomburg, except that it's the old doo of space-suit clad-steely-eyedhero and dressed-for-the-beach-sweet-young-thing. It does get monotonous after a while, doesn't it FSam?

Getting back to Finlay-how does he do it? I have noticed that, in the last few years, his style has changed subtly. Even as recently as one year ago, his illos looked somehow, different from those he does now. In magazines of 1951, and earlier, his illos seem to have more contrast between light and darkness, than they do now. They seem richer, as it were. His blacks were black and his light was light. He is still my top favorite artist, however. Nobody does inside illos better than Virgil Finlay. Not even Orban.

Hmmm . . . Can't leave without saying anything about the letters.
Bobby Stewart, (the one from Texas) why didn't you tell me you had a box number in your address?

Bob Stewart, (this one is from California?) Yipe, those frantic postcards I keep getting!
Aside to you, FSam; MEET ANOTHER THWARTED NATURALIST BY TRADE! Who? Why ME, naturally.

Still making cracks about Wild Bill Tuning,
the Seven Side Etc., from Santa Barbara? Hmmm -. . guess he's still in circulation then. Bill, whyinell don't you ever write to me any more? Been almost a year since I hear from you! (FSam, I think I've got a bad case of ghosts. You see, I've got a small bottle of paste beside my typer that I use to mount Pogo strips [Damn thing's almost empty; gotta get some more, I guess.], and the lid on the thing just now unscrewed itself and jumped off the bottle, three inches into the air, onto the floor. 'S a fact.) Anyway, Bill if you aren't mad at me for some reason which I can't fathom, and if your typer isn't in hock, please, puh-leese write to me. I'll send you a free copy of ECLIPSE if you will.

Henry Moskowitz âre you talking about the old Lefty Feep series that ran in FA during the middle Forties, when you mention Lefty Baker? Can't remember who it was as wrote 'em but I don't think it was Craig Browning.

Your editorial was entertaining. I can picture it all now, with the prof's plastic balloons overhead. No need of roofs on houses and buildings. Boy, couldn't you have fun with a helicopter and a pair of field glasses? With no rain or snow, or hail, or sleet, or any of the vagaries of the typical meteorological year it is my opinion that life would certainly get very dull in the city. Go to work in manufactured sunny weather, come back in the same thing. No variety. Sounds like the prof is trying to take the fun out of everything. And he mentions, (or you mention, that is,) city people sojourning in the country, and discovering the wonders of rain and wind and brooks through which one might splash. Inside of one or two months some con man or group of con men (opportunists, let's call them) are going to start charging admission to the country, so you'll have to pay $1 / 2$ a credit to go wading in the bookwhoops, I mean brook, and 3 or 4 credits to breathe the wind and rain, and a whole Sol to get the privilege of being drenched in a rainstorm. 410 So. 4th St.. Norfolk, Nebraska.

Well sure, Finlay's style has changed-matured, I'd say-but I haven't noticed that he was doing more high key stuff lately. Did you happen to notice his illos for THE DIPLOIDS in SS? Glad to meet another thwarted naturalist and gee, thanks for noticing the humor in ye editorial on the plastic pillow roof. Was beginning to think everybody out there was dead.

## BROADENING THE BASE

## by Bill Warren

Dear Mr. Mines: Every now and then a horrible urge comes over a fan to get his name and views aired in the letter column of a science fiction magazine. Since the staples of my stf diet are drawn from the Thrilling group of publications,

It falls to you to bear the brunt of this uncontrollable onslaught.
FSM is a good mag. It can't miss with names like Leigh Brackett, De Camp, Kuttner and company lined up like a string of diamonds on the contents page. But I'm not here to discuss the mag. FSM is good . . . I buy it . . . I read it. What more can I say to warm your editorial heart?

Some time ago, one of your group of mags printed a -letter from Tetsu Yano of Japan. I wrote this very fine gentleman and we have become fast friends. I have sent him some stf and we have discussed the stuff off and on (he was quite innpressed with The Gods Hate Kansas) but our correspondence has a wider base of discussion than this. I have found that stf, as fascinating as it is, cannot form a foundation for continuing correspondence. It's the same thing as two people writing each other back and forth at a furions rate and discussing nothing but petunias. You agree?

Well, Mr. Mines. I guess this will serve to let you know Old Willie is still here. I still read stf as regularly as ever, though some of the zip, zoom, zowie is gone. The delirium is gone; but the fever remains.-314 West Main Street, Sterling, Kansas.

You never heard of the Petunia Association of America? Kid, you ain't lived. There are people who will talk about nothing but petunias. Just try to change the subject and they get bored. There are chapters of the Association all over the country. And during transplanting season-brother, do things hum! The excitement is a little too much for some of the elderly members. But I just can't get excited about petunias somehow. Even the frilled and ruffled varieties. Dahlias are for me.

We apologize in advance to the Dahlia Growers Of America. And the Clematis Jackmani enthusiasts.

Glad to hear you're writing regularly to Tetsu Yano. His original letter appeared in SS, (I think. Get 'em confused myself sometimes.) But this was what I'd hoped for; that a man so avid for information would attract a few letter writers who could answer his questions in detail. Thanks for the support, Bill.

## WATER UNDER THE BRIDGES

## by Heary Moskowitz

Mines Dear Sam: Remember your blood pressure, you say. How can I forget it? Both the January and March issues of FSM have been late, which is a terrible thing-considering that I've read both lead novels before. But some day you might be late with an ish in which there is a novel that I haven't read.

SHADOW OVER MARS-An excellent story, if memory serves; but hardly a "book-length"er. Know why Leigh's Mars seems realer? Because Leigh is basically and at heart a poet and a dreamer. And it's too bad that so many of us look down on dreams and dreamers as we grow
up. This is maturity? Hell!
Of the reprints I've read THE BEST LAID SCHEME and BABY FACE, by de Camp and Kuttner, respectively. Do I detect a tongue-incheek accent in both these fine yarns (You wouldn't call 'em stories, would ya?)? But let's not get into time paradoxes. I hold that two future men fighting in the past wouldn't change history, since the past people watching don't know them from Adam. Time is only something we've made and is therefore relative to our own minds.

Both the new short stories out-shone the oldand against top craftsmen, too. This Slotkin is good. Get more from him. And as we know, Matheson is no slouch, either.

The art was very good. I did like the original illos for the Brackettale better than these Finlays. An overload of symbolism throughout, don't you think? Schomburg's first babe cover was all right, but doesn't his style rather remind you of the calendar girl type?

Several points of interest in CE-but otherwise a dull run. I've been thinking about some way in which we might pry loose some oriyinal art from the Mines mags. A contest is not too sound an idea because I well know that Mines would be rather reluctant to part with the original cover paintings month after month. How many times have I heard "We only buy the right to reproduce the cover, not the cover itself."?

But a best letter thingamigbob sounds all right. Bill Hamling tried this for a bit but dropped it because not enough people were voting, "Just fen." Well, what did he expect? Who else but a fan would want original cover art? People read those sexy pbs that you can buy for two bits, but would they like the original covers? Some might but most wouldn't. So any kind of thing like the preceding would be for fen and by fen-mostly. But this shouldn't stop non-fen from voting-and winning if they write a good letter, which is something of an art.

I take opposition to the statement that mags vary in material so much that their quality and rank change. This has happened a few times, but that is an exception to the rule. A good mag will stay up because writers know that the mag uses issue-making material and is willing to pay for it-and the reader knows that the mag carries good material.

For example, in the last year SS-and TWS to a lesser degree-came up the scale to the place where a lot of fen I know wait for each issue with more impatience than they used to show for aSF.

Somewhere along the line I changed ribbons, Sam, so I'm safe for a while. And thank you for that clarifying answer regarding aSF reprints.

Who's Conan, the man asks. Who lives out in the sticks, out of touch with the world-me or you? Sometimes you make me wonder. Advice: Look through those piles of books on your desk and possibly you'll find a review copy sent by Gnome Press of Conan books. If you don't have them, I might be persuaded to lend you mine. Or you can go out and buy the old issues of WT in which they first appeared. They'll only cost you a small fortune apiece.

Get here early next time-this is ruining my chances to have letters printed.-Three Bridges, N. J.

Hank, isn't it time you discovered James Branch Cabell? Your remark about looking down on dreamers and dreams as you grow up -well, this is what Cabell says, that the dream is more important than reality because reality is nothing much to brag about while the dream is man's only hope.

Stop dividing up the body, or bodies, of the art work. To avoid being torn to pieces by angry fen we've been doling them out to conventions where they can be auctioned off. But a letter contest? Who wants prize-winning letters? Hank, be reasonable.

Conan? I was only kidding. In fact there's a book staring me in the face now called "The Sword Of Conan." A refugee from Poul Anderson.

Don't get your feet wet, Hank.

## VULCAN'S DOLLAS by Terry Cors

Dear Sam: Finished the latest FANTASTIC STORY MAGAZINE last night. A pretty good issue . . . certainly not the best you've turned out, but good nevertheless. Gazing at Schomburg's cover clicked a relay over in my mind suddenly. Back in the days when my only stf-reading was comics (say about 5 years ago) I used to read two comics called Startling Comics and Wonder Comics, when carried very good covers by one Xela. I was marvelling at how the styles of this Xela and Schomburg were alike when it struck me. Sam, what's Alex spelled backwards? (We give up. What is it?-Ed.)

Leigh Brackett's novel, while good and worthy of reprinting, is certainly not her best . . . in fact, I'd say it was about her worst. I'd read it in the original STARTLING printing, and didn't reread it here, even though Brackett is still one of my favorites ... and, up to a few months ago, was the favorite. Your reprints of shorter length were a good crop, with BABY FACE and HERO taking top honors. De Camp's little bit was good enough to take third place, and Jacobi's piece takes last. It was a good tale, but lacked characterization and warmth . . . which was one of the main faults with science fiction around its era. The two new stories show the difference in content between the eras strikingly. Matheson's DEATH SHIP has excellent characterization, coupled with an intriguing idea and an excellent ending. Jacobi had an intriguing idea, but it lost its fascination because the story didn't seem real. Slotkin's shortshort was worthy of printing, but certainly not worthy of shouting about.

I hear that you're going to drop the circle-type cover format, Sam. I'm really sorry to see it go, though I can imagine what a headache it was to the art department to olan a cover that would look well inside a circle. This latest Schomburg cover is a fine example of what can be done with this format. However, I don't think that they can come up with as good a layout too often, so perhaps it is best that the format be dropped. One
thing I will request, though, is that-whatever the new format-you leave the type off of the cover painting.

Now maybe you'll allow me a plug or three? I'm editing a mag called VULCAN that will really be a good mag, I think. I've already got quite a few well-known fan writers lined up for material, and quite a few good artists on the staff. The main thing that we need now is some subscribers . . . say about 50 or 100 of them. Maybe some of your readers would like to take a try at a fanzine. I'd suggest that they try VULCAN
or, if they're more interested in cartoons, try NONSENSE. VULCAN sells for 15c, or 4 for 50c; NONSENSE goes for two for a nickel.
One last plug . . all fans aromd the San Francisco area are invited to join the Golden Gate Futurian Socicty, a club composed of science fiction and fantasy fans who have informal meetings every other Saturday afternoon. For information they can contact me. Thanks a lot, Sam.-134 Cambridge St., San Francisco 12, Calif.

You've no idea how much will power it took to refrain from suggesting you change your first name to trolley, or cable, considering where you live. But we refrained and we're glad.

That circle format for FSM was interesting, but it did have certain disadvantages and on the whole it was less picture. So don't feel badly about any change. We're still experimenting and interested in improvements.

## SLANGUAGE <br> by W. P. Strydom

Dear Mr. Mines: I have before me the November, 1952, issue of FANTASTIC-that is what has inspired me to this. I have on numerous occasions wanted to write to you anent your magazines, which I, by the way, consider to be tops in the SF-field, but on each occasion I have taken pity on you and closed the tripewriter. What a life you have-reading (or don't you) through the collected nonsense compiled by a lot of ungrateful fans. Or am I asking for a time-bomb by post?
To come to the point-SLAN.
I have read about SLAN and read about it till now I feel that I definitely MUST have it as otherwise my worthless and misspent life is sure to be empty of literary pleasure. The lettercolumns in the past few issues of your mags have been full of SLAN and praise of SLAN. Now pulease, Mr. Mines, can you force one of those same ungrateful and unkind fans or somebody to send-for sale or loan-me a copy of SLAN?
I am a regular reader of your mags-have been for years, but some issues seem never to reach this happy land of ours. Who knows, some day my financial position will improve so much as to allow me to subscribe to all three your mags!
I won't start off singing the praise of your mags-you must know yourself that you have set and are keeping to a standard of quality that can't be beat.

Thanking you in anticipation for your assistance in getting me that copy of SLAN.-1, Naylor Road, Southdene, Port Elizabeth, South Africa.

Well, of course your life wouldn't be complete without a copy of SLAN. Mayhap some kind fan will see this frantic plea and offer you one. A good place to pick up back numbers is in the pages of a fan magazine called the KaymarTrader, whose address is 1028 Third Avenue South, Moorhead, Minnesota. If you get no action, write to them.

## DE CAMP FIRE <br> by W. R. Kaufran

Gentlemen: I read a lot of science-fiction magazines and the first thing I do when I get one is to see if there is a story by de Camp, which I always read first. Just thought you'd like to know.-1320 Hartrey Ave., Evanston, Ill.

Yes, we like to know these things. And we bet de Camp likes to know them even more.

## COMIES THE REVOLUTION by Joe Keogh

Dear Sam: After reading most of Arthur C. Clarke's book, EXPLORATIONS IN SPACE, I have received an idea so startling, the likes of which have never been voiced in this column before, I venture to say. The very thought of such a thing is sacrilegious to any stf-mag. That is, the fact that space travel might never be achieved!
To elaborate, I for one do not condemn space travel. There have been many barriers put forth by declaimers of space travel, but many of them have been false. Example: it can't happen, because of high acceleration, cosmic rays, the sun's pull, etc. These are all negligible. The real problem is the fuel, and if it's never solved, neitherwill space travel be given the all clear.

So get out of that arm-chair, fen, and stop "trusting" in the almighty power of science. For unless we get a radical new fuel, with a much greater exhaust velocity, or a radical new theory of propulsion, (neither of which seems to be near in the offing) space travel per se is dead!
Now outside of putting the damper on a thing that could come true with our new multi-step rockets, there is a yet funnier side to the horrible calamity of being marooned on Earth . . . we humans have been scoffing at ridiculous things for years. We ridiculed the horseless carriage, we scoffed at airplanes, we laughed at "submarines." But they all came true.
And the colossal joke of it is that when the first stupendous and unbelievable thing next comes along, most of us (including myself) firmly believe and put faith in the powers of science "to eventually" triumph over all difficulties and attain space travel. And then it never happens !

The above, Sam, is a perfectly logical argument, and it clearly shows what would happen if the achievement of space travel were never achieved. Frankly, I believe we'll lick the problem yet, but some of us are being too over-optimistic.

Now, if I may sav a few words about the March number. Whoopsla!! One of the best ish since SLAN. Will Hank gripe about its reprint? (1944)

I doubt it . . . because-it is GOOD space operal (Right now, I'm talking about SHADOW OVER MARS). I can understand now why this story made her famous overnight. (Now, it's Leigh Brackett). But if you print any more of those new novels or stories in FSM (The reprints ranked highest, the new ones just were rank) it will be I personally who will pin you to the wall of the editorial office with eighteen Martian gnurl-gnifes. So much for that!
And I'm glad to see covers like Schomburg's again, after some of the sickly ones that looked like the artist accidentally wiped his sleeve across the wet paint. And a story to it?!! The art work and color scheme was very good, and the story of free fall was fair. That would give the cover on a score of four points (one point a bonus if they're not just plain sexy) 1, 1,.5, and .5. And you don't often get \#3 covers on FSM. So it must have been an occasion down at 10 East Fortieth St. Not celebrating the voluntary withdrawal of Jerry, are you?
And with stories like BABY FACE, BEST LAID SCHEME, and WAR OF THE WEEDS, the latter two being the best of the shorts, you have enough to fill three FSM's. There was only one thing to complain about in the March FSM, and that was the letter column. Besides being shorter than a stunted flea, the letters don't seem to be quite as interesting as they do in TWS and SS. Maybe it's because only "those" type of people buy reprint mags. (Yes, Sam, that's a doubleedged sword . . . I bought one.)
Anne Forster: Ever see a kid with a candy-bar? Always thought they gulped them down . . . same thing with me and an s-f story . . . and how does one eat a candy-bar twice?
And as scaly and scathy western letters have their own terms, podner, so does science fiction, by ghu! Sorry the letter was long, Sam, but I couldn't draw myself away from the typewriter once I started . . . and ALL the offers I received from haggard stf-fanzine editors since you called me an author in SS!!-63 Glenridge Ave., St. Catharines. Ont.

Joe, you nearly suffered the fate of Gregg Calkins, who was incarcerated in the doghouse for bitter, bitter months over getting two letters in the same column. However, we didn't want to repeat ourselves and get into a rut. We decided to treat you by heaping coals of shame on your head. And now we know that we have to watch you with our eagle eye (the left one that is), for the same larceny lurks in your heart as in that smooth-talkin' Calkins.

## BUY BY BYE <br> by Ray Carmichael

Dear Sirs: I would like very much to get a copy of SLAN by A. E. Van Vogt. However, I understand you don't sell back copies of your magazine. I thought I'd write, though and maybe some reader would have a space copy they'd be willing to sell.
I also wrote to find the answer to a question that's been troubling me. Is Lewis Padgett and

Henry Kutincr one and the same? If so, which is the pen name for the other?
If by chance Lewis Padgett and Henry Kuttner are the same I would also like to buy any story by him that was published before A MILLION YEARS TO CONQUER was published. If they aren't the same person I would like to get hold of any book with a story by Lewis Padgett in it. Thank you very much.-508 Woodland, Houston 9, Texas.

It is the world's worst-kept secret that Henry Kuttner and Lewis Padgett are one and the same.

Padgett is the pen name and Kuttner is his real name. The latest book we have seen is ROBOTS HAVE NO TAILS by Lewis Padgett, published by Gnome Press and reviewed in STARTLING STORIES for May 1953.

## OOPSLA

## by Gregg Calkins

Dear Sam: Just a short note this time about the March issue. Thanks very much for one of the finest space operas I've ever had the opportunity to read. I'll bet a lot of readers are tearing your head off about now for printing a novel that came out originally less than ten years ago-and maybe they have a point at that-but from my admittedly biased viewpoint, I have nothing but thanks.
My back-issue collection has been suffering quite a bit recently what with an extreme case of lack-of-money-itis plaguing me. So, if it weren't for the reprints in FSM, I'd have to wait quite a while before I'd get to read these older stories. Then, too, I'd have to wade thru quite a few not-so-good ones to get down to the real classics. FSM does it all for me.
Congratulations are really in order to both yourself and Brackett for "Shadow Over Mars"-this is the kind of writing I really like to find in science fiction, and all too rarely do. The emphasis today seems to be on the more intellectual story, and although they're fine in their place, I still prefer the lighter space opera and semi-fantasy. Heck, you know my favorites-HELLFLOWER, JOURNEY TO BARKUT, TROUBLED STAR and the rest.
Say, I understand Bixl has left you, Sam. That right? Too bad, I'll bet he was quite a kick to have around the office. But, say, doesn't that leave you with a hole on your editorial staff? Um, you know, I always did think I'd make Thrilling Pubs a good associate editor. When do you want me to start work, Sam? I'm catching the noon train for New York tomorrow, so look for me most anytime. I've got a whole three issues worth of fanzine reviews written already, and also some book reviews. Then, too, I can do a little bit of layout, read manuscripts. . . . oh, yes, I'm experienced. I print my own (ahem) magazine, you know.

Sam! Remember your blood pressure!-1429 Talisman Drive, Salt Lake City 16, Utah.

Get in line and stop pushing. What took you so long in getting your application in?

## RUINS AND RUNES <br> by Maril Shrewsbury

Dear Sam: It's against all my policies to buy reprints, in any way, shape, or form. But just because I make a rule, it's no sign that I can't break it, and in this case, I'm glad I did. I'm speaking about the March ish of your Fantastic Story Mag. I've read a lot of Leigh Brackett's stories, and I enjoyed SHADOW OVER MARS more (or at least as much) as any of them. The short stories were up to the usual standard of reprints, which is awful, but Miss Brackett's novel was worth the quarter, and the broken rule.

And now to the meat of the ish, namely the letters. Kisk, kisk, snick, snick (sound effects, sharpening up of claws and fangs). Since I haven't been reading FSM, I can't comment on the comments on the stories, but I'll try and find something to gripe about. Such as, such as, such-aw, heck, Sam, I can't find anything to gripe about! This will ruin my reputation, positively ruin it. (Of course I haven't any rep to ruin, but I can dream, can't I? Can't I Sam? Please?) Anyhow and whereverfore (?), I intend to keep on buying FSM, if only to see if SHADOW was just an accident, or whether it will happen again. Hope springs eternal, dontcha know?-Box 1296, Aransas Pass. Texas.

So one of your missiles finally got printedand I do mean missiles. You don't write a letter, you hurl it. Must really have broken your heart not to find anything to gripe about, huh?

## DOWNGRADE <br> by Ron Ellik

Shhh, it's coming. It'll be here pretty soon, now. There it is. You can see it turning the corner in the hall now. Better look out, and not let it touch you when it comes in, just look it over from a distance in the true editorial fashion, and then pull out the blue pencil.
What am I talking about, you want to know? My letter, of course! That's the way you read all of them, isn't it? Must be, 'cause I doubt that you'd print the kind you do if you took a good, close look at them. If you did, you'd print something more like mine. Maybe even mine. But onto the letter!

Sorry if I insulted you, Sam, but I just couldn't think of any other kind of original opening. Okay? If SpS printed reprints, SHADOW OVER MARS would be just the thing to spice up the mag. After you printing THE BIG JUMP, which I downgraded in another letter, you need something like SOM. It was a darn good story. Like I have said before, I wasn't around when it was first printed, but it makes me wish I had been. If that's the kind of stuff you printed back then, then people aren't kidding when they talk about the 'good old days.' They must have been!
BABY FACE was just the touch Startling needs right about now. A little good humor is just what the mess-I mean mag-needs right now. Except for TROUBLED STAR, you had the worst five issues I've ever seen in the last five
toonths. I really enjoyed BABY FACE. This Kuttner is quite the up-and-coming young author, tsn't he? Where'd you find him, Mines? (Please spell Hank's name right if you print this, Sam. I just can't find it right now.)

Please, oh Almighty Mines, just a little free publicity? Huh? I throw myself-hey! Wait a minute, what am I saying? Correction, please: I throw my faned, Larry Balint, 3255 Golden Ave., Long Beach 6, California, at your mercy if you but print the announcement that Fantasta, the only fanzine in Long Beach, needs subscribers. It's 3@10c.8@25c, 16@50c, \& 32@\$1.00. We started out with one page, now have four, and hope by ish no. 6 to have six. Regular articles by David A. Bates, Bler, and me. (I do a fanzine review.) We need more paying subscribers than material, but we can use that also. Short fact and non-fact articles, poetry, artwork, almost anything but fiction. We got way too much of that. Thanx. Sam. Forgot to mention that it's irregular.-232 Santa Ana, Long Beach 3. California.

Which magazine you writing to? This alleged letter was addressed to FANTASTIC, but all you talked about was SPACE STORIES and STARTLING. And look, griping about THE BIG JUMP and saying what SpS needs is SHADOW OVER MARS will get you nowhere, since Leigh Brackett wrote both in the well-known Brackett style. But you've given me an idea, in return for which I give you publicity for that (ugh) fanmag of yours: will dig up a little Kuttner for FSM. Seems like Hank wrote a good story or two back when.

## GREASED SKIDS <br> by M. Desmond Emery

Dear Sam: In answer to your request on the last page of the March issue of FSM, I've decided to cut the six years to six weeks.

Herewith, an apology. You may remember that in my last letter I hinted that you were slipping (more about that later) and in the next sentence offered congratulations. BUT, the congratulations should have been the next paragraph. I was trying to tell you that I am glad that you are editor of our favorite mags, even if I am a bit late. So is all forgiven, huh, please?
Now, this slipping jusiness. As I said before, I don't believe that any mag can be all things to all men, and, although your set is my favourite, you're still just mags. I'd lose my faith in the perverseness of man, if all your readers wrote in, liking (or disliking) cevery story. It just ain't natcheral. Now, take the March FSM, for example. The lead novel was excellent. So were a couple of the short stories. But "Hero" and "So Sorry You Died," or whatever it was, were pointless, and not too well written. At least, so it seems to me. Other fans will disagree, I suppose, with my judgement, but that's fine with me. To each his own. Those two stories illustrate my point about slipping (to get back to the subject) because there have been an unusual lot of their kind lately. I don't happen to have any of my mags around at the moment or $I$ could point out
[Turn page]

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a few. But, anyway, that's what I was trying to say in my last letter.
A thought just occurred to me. Since all mags seem to be getting some poor stories lately, maybe it's me! Can something be the matter with my mind that I can't appreciate Stf any more? Of course, it could be that I'm developing a better critical sense that I had before. See you next month.-93 Hemlock Street, St. Thomas, Ontario, Canada.
P.S. I'd like very much to hear from other fans, any where, any time. I promise to answer all letters in less than six years.

> M. D. E.

So you're not quite sure whether we're slipping or it's you? Ah, me boy, never give an editor an opening like that. 'Tis only the charity in our souls that makes us turn our back on temptation-and it isn't often we can resist temptation. But actually we don't expect you to like every story in an issue. If you did, someone else would dislike them all. If you liked all but two, we did pretty well.

## SOLO <br> by Emily T. Hendrickson

Dear Mr. Mines: After several years of reading science fiction I am finally inspired to write to an editor, not by one of the wonderful, fascinating ideas in the stories, but by a comment on a title.

Anne Forster, in the March issue of Fantastic Story Magazine, claims that SEA KINGS OF MARS is a trite title and advocates THE SWORD OF RHIANNON instead. I don't believe that Miss Forster has really considered the implications behind the oirginal title. For one thing it is a paradox: Mars is known as the desert planet, thus the use of the word "Sea" in connection with it is startling, to say the least. The main idea of the story, implied in the title, of going back to the time when Mars was young and vigorous is, or was then, completely unusual and thoughtprovoking. The word "Kings" in the title calls up thoughts of absolute power, the belief that absolute power corrupts and is eventually rebelled against. Thus, to me, at least, SEA KINGS OF MARS is an almost perfect title: It attracts attenion by a startling paradox, implies an unusual science-fiction concept, and promises an exciting, fast-moving adventure, all of which is wonderfully fulfilled by the story, which happens to be one of my favorites.
I do agree with Miss Forster that THE SWORD OF RHIANNON is a good title, but it is my opinion that Miss Brackett writes with such beauty and vividness that almost any phrase could be lifted out of one of her stories to make a fascinating title.

I rate the stories: (1) Shadow over Mars (2) Death Ship (3) Hero (4) The Best Laid Scheme (5) Too Bad You Died (6) Baby Face (7) The War of the Weeds.

Thanks for listening.-3045 S. Clermont Dr., Denver 20, Colorado.

One more point you forgot to mention. There
is a rhythm in the title SEA KINGS OF MARS which makes it stick indelibly in your memory, plus an easily grasped allusion, which THE SWORD OF RHIANNON does not quite have. A good writer writes by ear as much as by eye and looks for phrases which can be remembered audibly. Dialogue is written that way, and titles get especial attention.

## THAT COMIC TOUCH by Dick Clarkson

Dear Sam: You warned Hank Moskowitz to keep his blood pressure in check, but you said nothing of the sort to me! Therefore, I am a selfappointed Committee of One to ask you whether you were only kidding Hank, trying to get his dandruff up, or if you are really ignorant! If Dave Hammond read your answer to Moskowitz's letter in your March FSM, I can see him, complete with sword and helmet originally belonging to his hero, dashing to the station and heading with murderous intent in the direction of New York. "Who's Conan?" Great galloping Ghu's green girdle, man-I'm faked out. Conan, even to a non-fantasy man like me, is well known. He's the top man in fantasy, written about by the one and only Robert E. Howard. The greatest, or one of them, characters in all-time fantasy, and you never heard of him. Sam, I'm ashamed. Hammond will have your head!

Y'know, trimmed edges would go well with FSM. Matter of fact. if you trimmed the edges, FSM would have damn near my idea of the best possible cover-format: it would resemble the prewar aSF cover setup, which is my own idea of the all-time greatest. (Hint.)

The stories-ah, yes, the stories. You could take the reprints and set them aside again. . . . they were tops in the issue. Neither short could compare with them. I'd always wanted to read SHADOW OVER MARS, and I'd heard a lot about it. Liked it a lot. Sam. Thanx muchly.

Since when a Schomburg cover? Thought the man was strictly interior (a typo could make me out to be pretty wild-make sure it stays int and not inf). Always did like Schomburg in interiors, but on the covers. the color seems to take away some of the effect. and make it look like a comic stripn Now. if POGO had heen the.e. . . liked the cover anyhow a lot. so why am I hollerine?

All rimht. all right-I'm going.-Harvard Univ.. Lionel B-12, Cambridqe. 38. Mass.

We've already answered the insinuations about our not knowing Conan-hah, no sense of humor some people got. Would you be interested in knowing that Gnome has-just published a new, hitherto unpublished tale called KING CONAN? It was rewritten by Sprague de Camp and has an introduction by him.

Say, where have you been during Schomburg's cover appearances? One of the best acience-fiction covers of all time was a Schom-


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burg job-the double spaceship heading for the moon. It appeared on SS for November 1951. And another was the space satellite which was on TWS in October 1951. His space scenes have been very favorably compared with Bonestell. Haven't you heard?

## PICTURGRAMS <br> by Robert Kvanbeck

Dear Sam: I have one small request to start this letter. I only hope it doesn't start a chain reaction resulting in my letter being burned and a very nasty one sent in return.
What goes on with the covers? In your January ish of FSM, you have a good, but gruesome cover. Why can't we have the cover (even remotely) illustrate the lead novel? It would be a help to the understanding of the story, and might get away from these "impossible events" chains. Now if the Jan. ish had our friend Keith riding across Bifrost with Frega, I would have liked it much better.

YANK AT VALHALLA was good but not excellent. The best of the FSM for January was THE ETERNAL NOW. There's something to rave about. I also thought VIEWPOINT was a pretty piece of pen-wiggling.
Any chance of getting a WSA from you by mail? It seems up here in the North Woods, they don't stock extravagances like that. I'd sure like to have the '53 edition. Get some oil and loosen up those creaky bones of yours. With that happy note I leave you.- Box 233, Nevis, Minn.

Seems like you missed the big hassle over whether covers should illustrate stories. There are arguments on both sides of the fence, of course. But did you ever stop to think that a cover which merely illustrates a scene in the story doesn't mean very much to the casual beholder who picks up the magazine? It won't mean anything to him until he reads the story. Whereas a cover which tells its own story is more complete. It has a sort of poster effect which needs no further explanation.

Another factor is the time element. Covers which are complete in themselves can be painted at any time, held in reserve. A cover which illustrates a story has to be painted to order, has to make a deadline. If you've got plenty of time you can do it; if not, you can't. That's why you'll find most magazines use both types of covers. Where they can get stories well in advance, take time to work with the artist, it can be done. Where things are short they don't. We like to do it when possible and you'll see both kinds of covers in our mags.

## SMILE WHEN YOU SAY THAT by Ted E. White

Dear Sam: Tho I haven't read any of the stories in the April SS, I was touched off to writing this
letter by your reply to Art Lay.
On page 137 you say: "For you. FANTASTIC STORY MAGAZINE and WONDER STORY ANNUAL were born. They reprint the old storics."

This while not a barefaced lie, comes close. While Merwin was Editor, they did use oldies, such as in the first ish of FSM (then FSQ) Hamilton's "Hidden World." This story is a genuine old timer. It was published in 1929, in the first issue of SCIENCE WONDER QUARTERLY. This story didn't lose readability. Neither did Keller's "The Conquerors" and "The Evening Star" reprinted in FSM. They first appeared in 1929/30 in SCIENCE WONDER STORIES. There are others which Merwin reprinted, and countless more which still haven't lost their original charm. There is no reason to use (especially as a lead novel) stories as new as 1944-47. An exception is "Slan" which didn't originally appear in a Standard Pub. anyway.

While I'm at it, I might bring up the fact that you said (in answer to a letter in FSM) that original illos couldn't be reprinted. Strange, because in early HALL of FAME stories in both SS and CF , original illos were used. To make sure, I checked. Besides, Paul no longer illustrated for you.

There's a thought for you: Get PAULI He's back now, illoing for Gernsback's "S-F PLUS." I hear he has a cover coming up on the third ish. If you could only get Paul . . . . . oh well, I can dream.

There is one source of reprints which neither (to my knowledge) you nor Merwin used, that being: SCIENTIFIC DETECTIVE MONTHLY. True, a good deal of the stories are not useable, but a few are.

A final note: Let's not start reprinting stories in the forties, until we've used all the good ones of earlier days (not necessarily the "good old days").-1014 N. Tuckahoe St., Falls Church, Va.
P.S. Now that you've lost Bixby, why not get Rog Phillips to do your fan columns?

We must have done something awful in our youth to be afflicted with white lies this way. Look, bud, this is 1953. If a story which ap-, peared in 1044 isn't old-well, it's two years older than you are, anyway! And keep in mind the fact that we try to pick stories, not by the thickness of the mold on them, but by their Retained readability. I don't care how old a *ory is if it still stands up, but I don't see wach point in printing something which should * Sver have been published in the first place, just because it has attained the dubious distinction of age. Remember that FSM is something of a proving ground for new readers. They find the older stories easier to follow than some of the complicated new variety and these make a good introduction to science fiction for neophytes. But the stories cannot be dull. And this is the consideration which outweighs the narrower one of the story's vintage.
[Turn page]

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## MANX FOR THE MEMOKY <br> by Vivian M. Hutchins

Dear Sam Mines: I have been meaning to write to you for some time to compliment you on your choice of stories in your various magazines. Someday I'm going to start saving money by getting a regular subscription, but rest assured I buy them all every month anyway so you aren't losing a dime on me.

The May issue of Fantastic was what brought this on. It had some very good stories in it, to my mind, and please, let's have some more Pete Manx. "Dear Charles" by Fitzgerald baffled me somewhat, but I never was very good at figuring out what would happen when you switch back and forth into the future anyway, so let's say it's me and not Fitzgerald. Not being mechanically or scientifically adept I naturally lean more to the fantasy side of SF, and in that line there is one story I would like to read again. The title, I believe, was "Mr. Zzzztz," but I don't remember who wrote it. I think it was printed in one of your magazines back around ' 48 or '49. I remember it was a fine and very human piece of writing.

I enjoy your letter colunms very much, although I'll adniit they took a little getting used to (English as she is spoke), and my husband and I hope to get to the Convention this year if we can find someplace to park our three offspring.

Yours for more Bradbury and Crossen.-P: O. Box 113, Denville. N. J.

The story was MR. ZYTZTZ GOES TO MARS by Noel Loomis and it appeared in THRILLING WONDER STORIES for August 1948. From the hassle just preceding your thrice welcome missive, you might gather the impression that it is just a wee bit early to reprint said Loomis classic or have our heads handed to us. We agree the Pete Manx stories rate revival. While you and your husband are translating the letter columns, couldn't you sort of talk him into sending us some more stories and/or articles?

Left over are : a plaintive request from James Brook of 11 Cranberry St., Brooklyn I, N.Y. for MIEN WITH WINGS by Leslie Stone which appeared in the first issue of AIR WONDER STORIES; a rundown on the year's best stories by Roy Dixon, Box 175, Montgomery Ohio. He rates THE BLACK FLAME and GATEWAY TO PARADISE as the top rex prints of '52, and in SS, VULCAN'S DOLLS and THE LOVERS as tied for first place in the year's new stories. There is also a phonetic letter which our Krbuskovin experts are even now busy deciphering-it is obviously a message from outer space. Only trouble with it was that there was too much space between the first and last pages.

See you all right back here. . . .


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