The Purple Conspiracy by STANTON A. COBLENTZ

fantastic ADVENTURES

SEE BACK COVER

NOVEMBER
20c

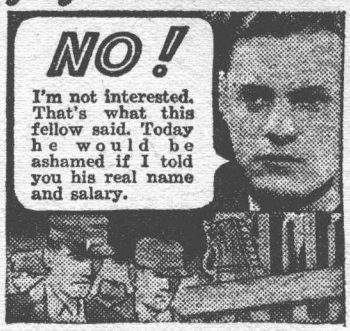
The MAN from HELL

BY POLTON CROSS

Other Great Stories by

NELSON S. BOND
MAURICE DUCLOS
THORNTON AYRE

Read what happened to these two men when I said:



I will Train You at Home in Spare Time for a GOOD JOB IN RADIO

THESE TWO FELLOWS each clipped and sent me a coupon, like the one in this ad. Both were interested in getting a good job in Radio—a field with a future. They got my book on Radio's opportunities, found out how I trained men at home to be Radio Technicians. S. J. Ebert, 104-B Quadrangle, University of Iowa, Iowa City, Iowa, saw Radio offered him a real chance. He enrolled. The other fellow, whom we will call John Doe, wrote he wasn't interested. He was just one of those fellows who wants a better job, better pay, but never does anything about it.

Now, read what S. J. Ebert writes me and remember that John Doe had the same chance: "Upon graduation I accepted a job fixing Radio sets, and within three weeks was made Service Manager of a Radio store. This job paid me $40 to $50 a week compared with $18 I earned in a shoe factory. Eight months later I went with Station KWCR as operator. From there I went to KTNT. Now I am Radio Engineer with WSUI. I certainly recommend N.R.I. to all interested in the greatest field of all, Radio."

"I WANT TO HELP YOU.

If you are earning less than $30 a week I believe I can raise your pay. However, I will let you decide that. Let me show you what I have done for others; what I am prepared to do for you. Get my book, read it over, and then decide."

J. E. Smith.

Radio is a young, growing field with a future, offering many good pay spare time and full time job opportunities. And you don't have to give up your present job to become a Radio Technician. I train you right at home in your spare time.

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Radio broadcasting stations employ engineers, operators, station managers. Radio manufacturers employ testers, inspectors, foremen, servicemen in good-pay jobs. Radio jobbers, dealers, employ installation and servicemen. Many Radio Technicians open their own Radio sales and repair businesses and make $30, $40, $50 a week. Others hold their regular jobs and make $5 to $10 a week fixing Radios in spare time. Automobile, police, aviation, Commercial Radio; loudspeaker systems, electronic devices are other fields offering opportunities for which N.R.I. gives the required knowledge of Radio. Television promises to open good jobs soon.

Many Make $5, $10 a Week Extra in Spare Time While Learning

The day you enroll, I start sending you Extra Money Job Sheets which start showing you how to do Radio repair jobs. Throughout your training I send plans and directions which have helped many make $200 to $500 a year in spare time while learning. I send special Radio equipment to conduct experiments and build circuits. This 50-50 training method make learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN, PROFESSIONAL ALL-WAVE, ALL-PURPOSE SET SERVICING INSTRUMENT to help you make money fixing Radios while learning and equip you for full time work after you graduate.

Find Out What Radio Offers You

Act Today! Mail the coupon for my 64-page Book, "Rich Rewards in Radio." It points out Radio's spare time and full time opportunities and those coming in Television; tells about my course in Radio and Television; shows many letters from men I have trained, telling what they are doing and earning. Read my money back agreement. MAIL COUPON in an envelope, or paste on a penny postcard—NOW!

J. E. SMITH, President
Dept. 9KM, National Radio Institute
Washington, D. C.

MAIL THIS NOW

FOR FREE BOOK OF FACTS ABOUT RADIO

J. E. SMITH, President, Dept. 9KM,
National Radio Institute, Washington, D. C.

Dear Mr. Smith:
Send me FREE, without obligation, your 64-page book "Rich Rewards in Radio" which points out Radio's opportunities and tells how you train men at home to be Radio Technicians. (Write Plainly.)

NAME..... AGE.....

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CITY..... STATE.....

The Editor's Notebook

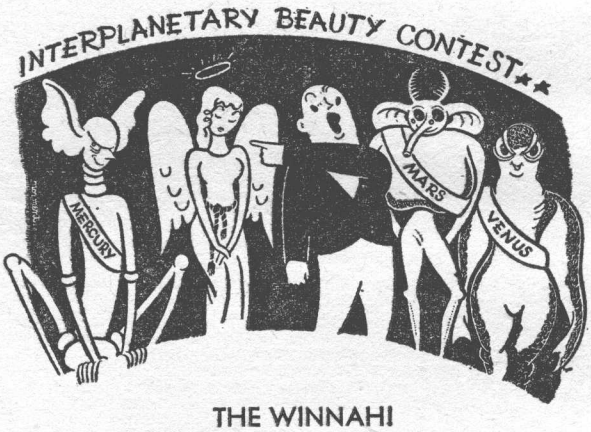
A CONFIDENTIAL CHAT WITH THE EDITOR

WITH this issue we bring you one of Polton Cross' best stories to date. He has written a true fantastic adventure that is worthy of inclusion in a magazine of our title. We feel sure you will enjoy this unusual story of science and adventure in the future, and of the fantastic "Man From Hell."

AND also with this issue we introduce an author new to our pages. He is Henry Gade, and he has written a down-to-earth story of the future of space travel, and how it might come about. We heartily recommend that you read "Pioneer—1957!"

IT is with the certainty that you'll stand up and cheer when we tell you, that we mention the imminent publication of Stanley G. Weinbaum's great novel, "The New Adam" this month. On pages 84 and 85 you will find complete information about it, and we advise you to get a copy of this first edition while you have the opportunity. It's a great story, take it from us.

WHILE we were writing this, the editors of *Radio News*, whose offices and editors are at the disposal of FANTASTIC ADVENTURES for many of our future radio science references, called us in for a fantastic demonstration of radio transmission of power. It was the first time your editors have seen this particular dream of fantasy writers in reality. We watched with bated breath as radio expert Karl A. Kopetsky proceeded to broadcast power from a power transmitter and pick it up with a small bulb of one-quarter watt rating. It burned brightly, and did not function on the induction principle, as we at first suspected. It was tunable, and when wave-lengths were changed to any desired setting, it became necessary at each change to tune in the "receiver" once again. The significance of this was brought home to us quite forcefully by the current war talk. We immediately imagined a city, lighted by broadcast radio power. Bombers are approaching. In the central control station, an operator swiftly changes the wave-length of the broadcast power, by simply moving the dial back and forth, in a pre-arranged signal. Every light in the city goes out and on in the warning of an air raid (thereby preventing householders from tuning in again) and the result is a complete blackout in a matter of seconds, over the entire city! Fantastic? Not in our offices! We've seen how it can be done.



THE WINNAH!

AS a sidelight on the radio transmission of power, we noted that the transmitter tuning allowed an intensity setting of amazing delicacy. We could have any degree of light we desired simply by tuning off the wave length a bit.

FIREWORKS? scoffs the Lick Observatory. They advise us to take a squint at the constellation Andromeda. Until you've seen the great spiral nebula in that constellation, you haven't seen anything! Well, they don't know us, do they? We've been there numberless times in our fantastic stories. But just the same, we'd like one of those telescopes mounted right on our rooftop! We wouldn't have to wait till the Fourth of July to dazzle our optic orbs.

WHILE in the middle of making up this issue of your magazine, Author Eando Binder dropped in from New York, accompanied by Julius Schwartz, who agents a lot of science fiction and fantasy fiction for some of your favorite writers and also writes such things as Fantastic Hoaxes in FANTASTIC ADVENTURES, and by Mort Weisinger, who edits another fantasy magazine. Hailing Jack Darrow, who crashes our Reader's Page very often, your editors were wined and dined at the Binder home.

SOME of the scientists of America must have been reading FANTASTIC ADVENTURES. They've been doing some very funny experiments of late. Just consider these: They have succeeded in driving rats crazy! The methods employed are simple. Two cards, differently marked, are placed before the rat. A blast of air spurs him to jump at the cards. If he hits one, it topples over, and he finds a tasty meal behind it. The other one—he bumps his nose, hard!

After awhile he learns which way to jump. But then the cards are switched! When he learns the new way to jump, it's repeated. With the result: the poor rat goes mad. Wouldn't you?

The other trick they've pulled is equally raw—but this time on ducks! They've invented a new chemical called Aerosol OT. It destroys tension by disrupting the forces that hold the molecules together on the surface of the water. And the duck finds half his support gone. But worse than that, the Aerosol OT takes the oil out of his feathers and allows the air to escape. He tips over and sinks! These scientists!

EDGAR RICE BURROUGHS, most famous of all science fiction and fantasy writers, has been written up by *Saturday Evening Post*. He is rated as the leading writer, based on popular appeal, which, after all, is the only way to rate a writer. On his following. He is most likely of all science fiction writers to have his works preserved for posterity. In fact, it is claimed he will live with Poe, Verne, and other great writers until his contemporaries will have long been forgotten. And thus it happens that a pulp paper writer ranks number one in the world today! We are proud to be one of the magazines which has presented the work of this modern genius.

WHAT with this newest war scare, breaking in full earnest as this is being written, science fiction writers who have been writing of the scientific horrors of the next war will soon be able to watch the actual thing, and see just how closely they came to what will actually happen. We won't have destructive rays yet, but we think there'll be enough horror, if it actually comes about, to make us firmly convinced the death rays of fiction should remain just that —fiction. Maybe our writers have been giving the dictators too many ideas?

BUT here's one the fantasy boys missed! Science has discovered how to treat alcoholic neuritis and delirium tremens. It seems that anyone who has gotten himself into such a state by excessive drinking can be cured by giving him—alcohol! Thiamin, or more simply, vitamin B, is the cure.

WE'LL be seeing you next issue with more jottings from our notebook, about fantastic fiction and fantastic fact. Until then, keep your rockets blasting.—*Rap*

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fantastic ADVENTURES

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1939

DEATH OVER CHICAGO
Don't miss this thrilling story by Robert Moore Williams in the January issue, on sale November 20 at all newsstands.

★

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Front cover painting by Robert Fuqua depicting a scene from "The Man From Hell"
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Illustrations by Julian S. Krupa, Kenneth J. Reeve

The Man From Hell

By POLTON CROSS

Dale Bradfield discovered atomic power, and was prepared to give the world the greatest of gifts. Then he was murdered and atomic power fell into the ruthless hands of Marvin Brant

CHAPTER I
Murder!

"GENTLEMEN, atomic power is ours! As you are all aware I lodged with Dr. Carson yesterday the results of my five years' research into the mysteries of atomic power. For next to no cost we can provide every city in the world with light, heat, and power. . . . And note these words, gentlemen! We have in our hands the greatest power man has ever known. It is born into a world crammed to the doors with diabolical armaments of every description. We all know how disastrously the attempt at world disarmament of 1970 ended. It is up to us to defy temptation. We must overrule the lust for barbarism and keep in check the desire for world-control which atomic force could certainly give us. I give my discovery to the world that it might benefit the world. . . . No more, no less."

Dake Bradfield stopped speaking, his powerful hands resting on the broad table on the speaker's platform. Then he stood upright, hands going to his hips, massive dark head thrown back. His piercing blue eyes passed swiftly over the faces of the hundred men gathered before him. For a moment he was conscious of the supreme power he represented. He of all men, son of a scientist, still only thirty-six years old, had done what all other men had failed to do—mastered the mystery of atomic power. His firm lips curved in a smile.

"I have nothing further to add, gentlemen," he stated quietly, and sat down amidst a roar of applause.

But Dake Bradfield was not concerned with the eulogy: he was trying to efface from his mind the possible consequences of his discovery. Again he wondered if a world stalemated with arms was a safe place into which to bring atomic power. But the thing was done now! The formula was in the hands of Dr. Carson, respected President of the Scientific Research Association. Only he, Bradfield, and Elford—Secretary General to the Association—knew what the formula was about. But suppose there was a slip-up somewhere—

This was thinking too far ahead! Dake Bradfield forced his thoughts to the moment, was glad when the convention was at last over and he could escape outside into the great marble corridors of the Association Building.

HE looked round eagerly amidst the swirling variety of people, nor was he disappointed. Presently, a slim auburn-haired girl in trim walking costume disentangled herself from the delegates and pressmen and came forward.

"Dake, you are marvelous!" she exclaimed, her dark eyes shining in admiration. "I heard it all over the relay speakers, of course. You predicted you would knock them cold—and you did! I'm proud of you, dear."

Dake smiled, drew her arm through his. "The opinions of Sheila Carson matter more to me than all the vaporings of delegates," he murmured. "If you think that, your father must think so as well. And since your father is my boss it sorta works out."

They walked slowly along for a moment or two down the hall, then Dake spoke again.

"If every guy in the world had a girl like you to help him, we might have less bitterness," he sighed. "Did you ever stop to think that you've wasted the best part of your life waiting for me?"

Sheila wrinkled her nose. "Well, you said you were too busy to marry me and settle down—and since you've proved your point now what does it matter? After all, our marriage is an insignificant thing compared to the discovery of atomic force. . . ." She broke off suddenly and gave him an indignant glance. "Say, what do you mean?—wasted the best part of my life? I'm seven years younger than you, remember. I'm no faded blossom yet!"

"Nope, I guess not," Dake amended. "Only I think sometimes I've been a bit of a heel making you wait. But now it's all finished with," he went on intensely, his blue eyes shining. "We'll be married tomorrow! We'll take a honeymoon for a vacation. God knows, I need one!"

"Now you know how it feels to die!" he whispered

"Tomorrow! But—but—"

"Special license. And no arguments! The best way to celebrate my success is to marry you. Now let's go and grab a bite to eat."

They turned away swiftly towards the dining rooms, unaware that the expressionless eyes of Elford, Secretary General to the Association, watched them go. Elford turned, a small and impassive enigma of a man, and walked unhurriedly out of the building.

ON THE topmost floor of the gigantic Brant Steel Corporation Building in the heart of New York reposed the sumptuous office of Marvin Brant himself, President of the Corporation, multimillionaire, autocrat, and quasidictator of America's teeming millions of average workers.

At the moment Brant was pacing his office very slowly with his plump hands locked behind him. He was a bullock of a man with vastly wide shoulders and the face of a champion bulldog. His hair though thinning was still raven black, an excellent testification to the iron strength of body that had lifted him from a smelting foundry to consummate power and wealth.

He paced his office as though he were alone, ignoring the man seated in the hide chair by the door. Not that the man seemed to mind. He smoked a cigarette leisurely and stared at the ceiling meditatively with steely bright gray eyes.

At last the desk buzzer sounded. Brant stopped his perambulations and snapped the switch.

"Well?" His voice was thick and husky, matching the folds of his heavy, pallid jowls.

"Mr. Jones to see you, sir."

"Send him right in."

Brant stood expectantly waiting, his keen eyes on the office door as 'Mr. Jones' came in. It was Secretary Elford. He glanced at the man in the chair, gave a calm nod of acknowledgment, then advanced to the desk.

"You heard and saw everything over the radio-televizor?" he asked the big man briefly.

"Naturally. What we're waiting for is your verification. *Has* this fellow Dake Bradfield *really* got atomic force?"

"No question of it," Elford replied in his level voice. "In the hands of the Science Association is the greatest power this world has ever seen, power which could have broken you down utterly, Brant, had you not had the wit to foresee what was coming."

The magnate's smile had no humor in it. "I sure had the right hunch when I engineered you the job as the Association's Secretary. In five years you have become installed as the essence of honor. It has been well worth the wait. Naturally you know where this formula is?"

"Do I!" Elford echoed, his pale eyes shining. "As the Secretary, Dr. Carson handed it over to me. It is entirely in my hands, and all you have to do, Brant, is pay me the sum agreed upon and the formula is yours. There are no copies of it, except in Bradfield's own brain. Once I have taken the formula I shall vanish from the Association and team up with you—But I needn't say any more."

"No . . ." Brant whispered.

HE sat down at his desk, rubbing his big paws together in grim exultancy. "At last we have it! Atomic power! What can we not do with that formula? I need it to save my own interests, yes—but we all need it for domination of the earth. You, Van Rutter, will use it for the creation of atomic shells, with which you will load our hidden air fleet in Europe . . ."

The man in the hide chair inclined his dark head. His lean, ascetic face was smiling twistedly. Henrich Van Rutter, of nationality unknown, was more than an arms magnate: his interests went beyond even the ruthless probings of Marvin Brant. But the two were inseparable because they knew each other's power.

"You, Elford, will take control of my own munition and science laboratories under this very building," Brant went on, turning to the Secretary suddenly. "You'll be safe enough. Nothing can get into my laboratories, nothing. And every man is to be trusted. Between us we can master the earth."

"Has this atomic force invention been tested by anybody else save Bradfield as yet?" asked Van Rutter sharply.

Elford shook his head. "He has given demonstrations, but our own scientists have yet to go to work. Bradfield's formula shows how to release atomic force for commercial purposes, but he has withheld the secret of how to make explosives from it. Not that that signifies anything: our scientists will soon discover what to do. That I believe has been Bradfield's main fear all along."

"Bradfield," said Brant slowly, "must disappear. I have it all arranged. As you know perhaps, Bradfield does not live in the city here. He prefers the privacy of a little isolated house two miles outside the metropolis. To reach his house he has to cover three miles of unmade road. That very fact makes him mainly immune from interference for an automobile cannot comfortably go along that road. Few people ever use it at all, in fact. Bradfield, my agents tell me, walks to and from his house every day to the city, probably for exercise. Tonight he will never reach home. He will be killed on the way."

"And what if the shot is heard?" Elford asked quietly.

The big man scowled. "Who in hell said anything about shooting? Give me time to finish, can't you! Bordering this unmade road on one side, in the midst of undeveloped land, are old mine workings. You remember the radium search in 1950 when some nut figured he'd found radium near here? Well, those disused workings are the result. Ultimately our friend Bradfield's body will be thrown down one of the mine shafts. But first he'll be strangled to death—soundlessly and efficiently. For that I shall engage

my old friend Vanson, the one time Manhattan Strangler. He's a crook anyway, ready for the hot seat any time I say the word. He'll do any job for a reasonable sum."

"And if the police track it all down?" Van Rutter questioned.

"Can you imagine the police being very interested in the disappearance of Dake Bradfield when all their energies will be directed on trying to find a stolen atomic force formula?" Brant asked with calm cunning. "And even if they do get ambitious I can always find a convenient maniac to take the rap. Money can buy anything. It's better we use a common or garden way of killing Bradfield than anything elaborate. The more ordinary it is the more suspicion is deflected from us, even granting there is any at all. It's all so simple, gentlemen."

"Yes—I think you're right," Elford admitted finally.

"O.K., then, the rest is up to you. Get that formula!"

DAKE BRADFIELD'S mood was a happy one as he swung along that solitary country road between the metropolis and tiny garden city suburb where he had elected to make his home. He had left Sheila Carson in the city with a promise of an early arrival on the morrow. Then at last their long delayed marriage. Afterwards, the South Seas, Paris . . .

Dake whistled as he strolled along, hands thrust deep in the pockets of his navy blue overcoat. A cold full moon shone through lowering autumnal clouds. In the field to his right beyond the barbed wire fence reared the broken skeletons of the mine workings, relics of a brief period when man had thought radium was on his doorstep. Now it was atomic power: but that was no dream. It meant the start of a new age, an age of—

Suddenly Dake stopped in his tracks, conscious of a faint sound in the clinkery dust behind him. He twisted around, but at that identical moment something thin and strong dropped lightly round his neck and instantly drew taut. With a frantic desperation he lashed out at the massive form he could sense behind him.

His efforts were useless, not because he lacked strength but because he was at a disadvantage. Besides, that damned cord was crushing the wind out of his lungs. He pawed air helplessly, gulped and gargled, dropped heavily to his knees.

Tighter the cord constricted, and tighter. Dake felt his lungs turn to liquid fire: the moon span crazily before his eyes. Darkness swirled in upon him in a singing tide . . .

Vanson, the Manhattan Strangler, waited a while with the cord still in position, then at last he stooped and felt for his victim's heart. It had ceased to beat. Vanson smiled, pulled the cord away and thrust it in his pocket. For several seconds he stood looking down on the dead, tortured face in the moonlight.

"The easiest thousand smackers I ever earned," he commented thoughtfuly, then humming a tune to himself he lifted Dake's heavy body onto his broad shoulders, ducked under the barbed wire fence, walked steadily across the empty field toward the nearest mine working. At the top of the first shaft he stopped, released the body and stood listening.

Some seconds afterwards there floated back to him from the bottom of the shaft a faint squelching thud, announcing Dake had landed in the heavy mud at the bottom.

Vanson dusted his coat with calm movements, readjusted his hat, drew on loud yellow gloves as he strolled languidly back to the deserted roadway.

CHAPTER II

Sheila Makes a Discovery

THE FOLLOWING MORNING scare headlines blazed across the front of nearly every American newspaper—

ATOMIC FORCE SECRET STOLEN! INVENTOR DISAPPEARS! Then the full resume of facts, including the disappearance of Secretary General Elford from the Association. Had he too been killed and disposed of, like Dake Bradfield?

The police were suddenly thrown into desperate activity, working in collaboration with the Intelligence Service—but Brant had laid his plans well and diverted every clue into a blind alley that led nowhere. Certainly nobody suspected the steel magnate. He had, in the five years at his disposal, prepared for every possible eventuality. Nor for that matter did anybody doubt the character of Elford. It was pressumed he had met a violent and mysterious end in common with Bradfield.

Dr. Carson, slim gray headed chief of the Association, was at his wits' end with worry. Upon him rested the sole responsibility for the theft. It would mean ruthless enquiries, accusations, probably the loss of his position for negligence, though God knew it had not been his fault. The whole business was an utter mystery to him.

To Sheila the news had come as an overwhelming shock. This day should have been her wedding day, the happiest of her life, was the cruelest of all. All through the morning she remained in something approaching a daze, then toward noon she bestirred herself far enough to dress and go down town to see what events had transpired.

"Nothing—nothing at all," her father told her drearily, once she was within his private office. "Frankly, my dear, though you know my heart goes out to you in your own sadness, I am far more concerned over the theft of that formula than anything else—"

"It's Dake I'm thinking of!" Sheila broke in with sudden fierceness. "He's got to be found, dad! May-

be he's been kidnapped or something. I just can't believe he's dead: it's too awful. . . Oh, what am I doing just sitting around talking? I—"

"Listen, Sheila—please!" Carson came round to her, looked earnestly into her tear stained face. "Dake's fate is only a small one when weighed in the balance with that formula theft. Do you not realize that it has fallen into the hands of an unscrupulous power? The very method of its theft shows that. There are no copies of that formula: they were to be made today, and Dake is the only man who knows all about it. He didn't even reveal the nature of his experiments to me. Oh, don't you see? There can even be war unless that formula is found! Dake's disappearance is matched against the possible slaughter of thousands of innocent people. Only a handful of police are engaged on trying to locate him and Elford. As the rest of the police, they're all looking for that formula. You must understand the situation, Sheila."

The girl nodded slowly, her lips tightening. "I understand all right, but the only thing that matters to me is Dake. I'm going to investigate for myself! I'm going over every inch of the route he must have taken to get home after leaving me last night. I've got to find him, dad ! He means everything in the world to me."

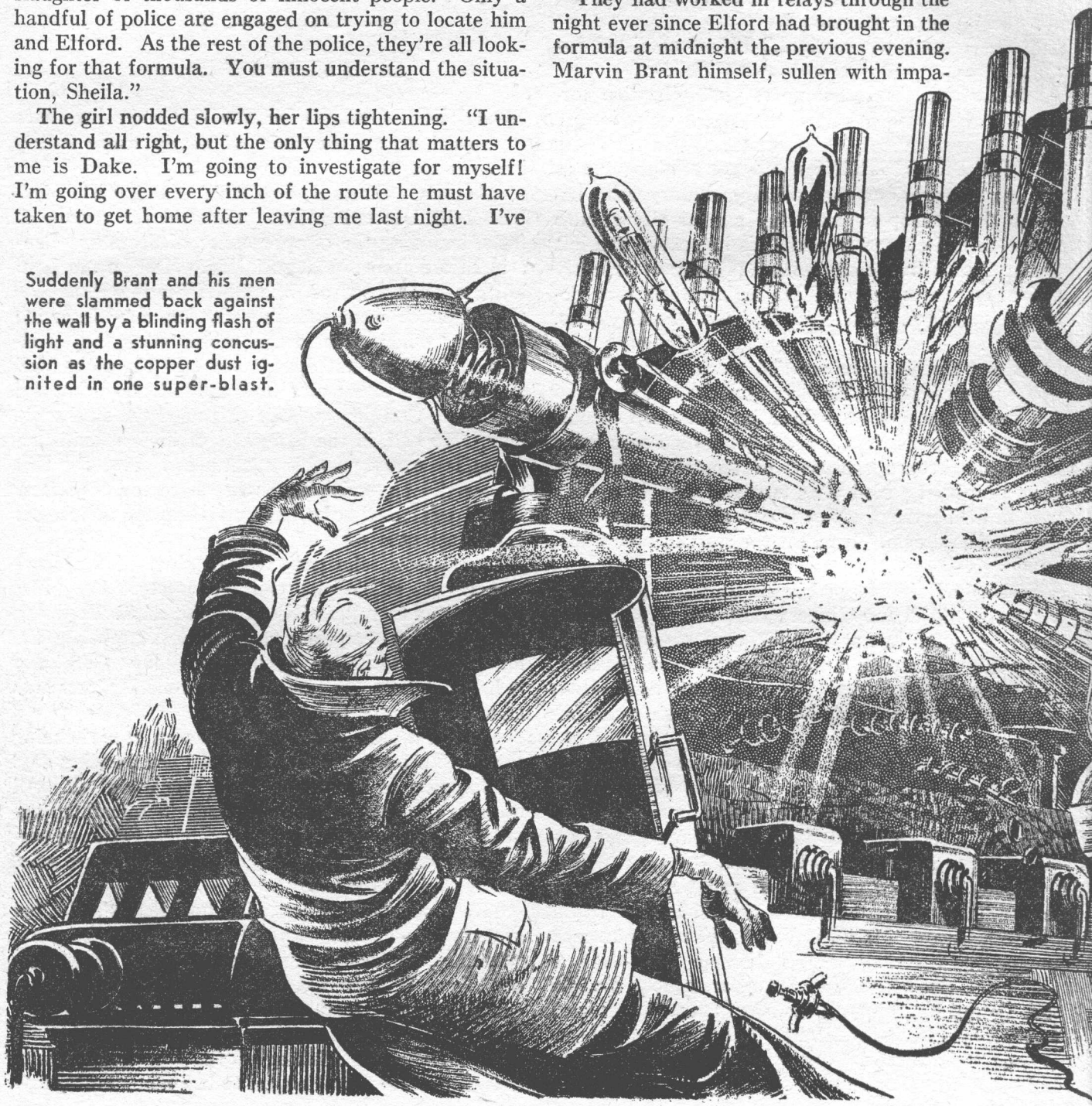
"But Sheila, there may be danger—"

"I'll risk it!" she retorted stubbornly, jumping to her feet. "I'm not waiting for the police, or for anybody. I'm starting right now!"

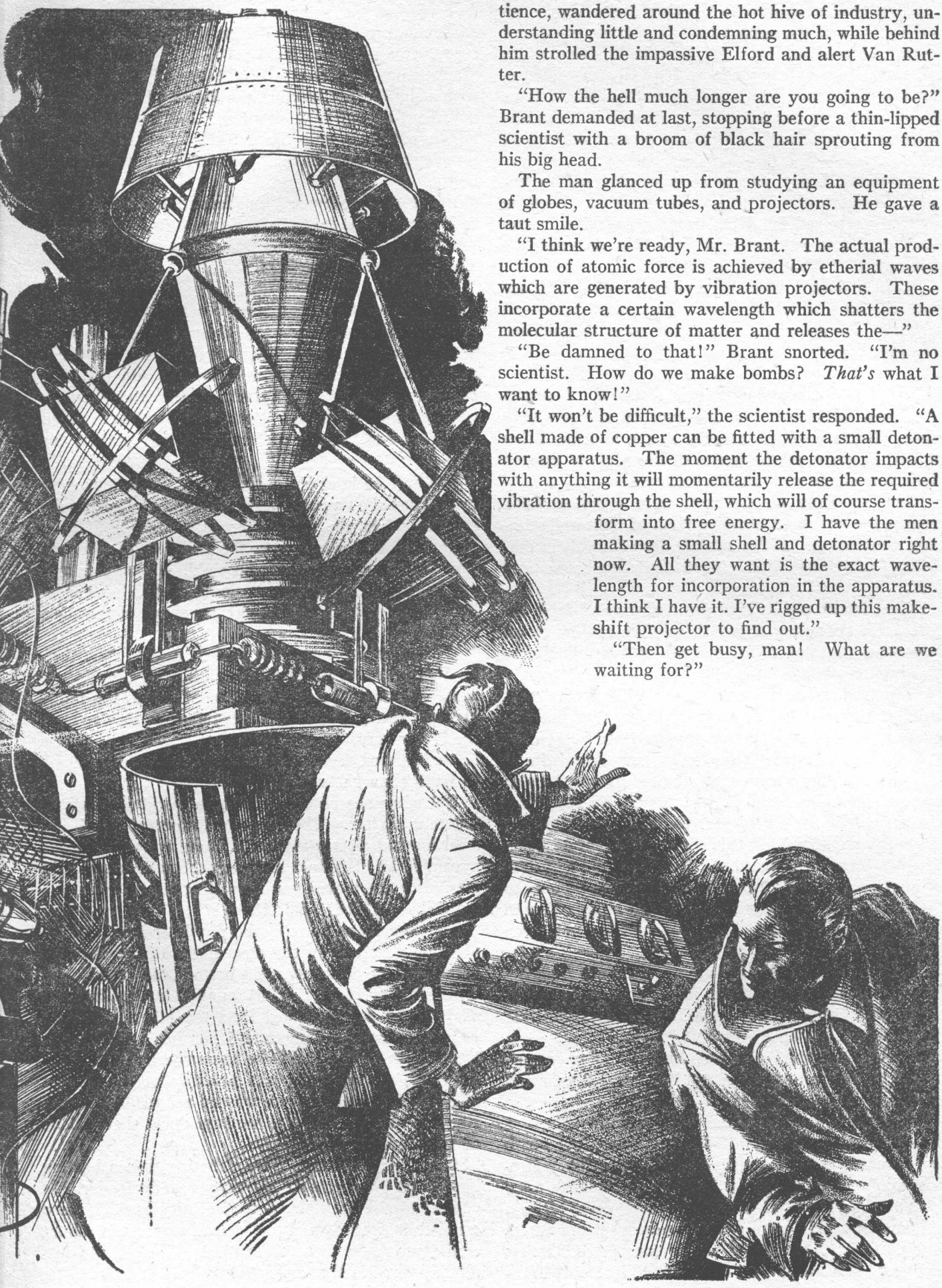
Carson relaxed as he watched her go. He knew it was useless to argue. She was too much like him for that.

IN THE immense laboratory of Marvin Brant, completely hidden from the world and safe from attack under the Brant building itself, protected by five foot walls and ceiling of concrete and steel, white-smocked technicians worked with steady industry.

They had worked in relays through the night ever since Elford had brought in the formula at midnight the previous evening. Marvin Brant himself, sullen with impa-



Suddenly Brant and his men were slammed back against the wall by a blinding flash of light and a stunning concussion as the copper dust ignited in one super-blast.



tience, wandered around the hot hive of industry, understanding little and condemning much, while behind him strolled the impassive Elford and alert Van Rutter.

"How the hell much longer are you going to be?" Brant demanded at last, stopping before a thin-lipped scientist with a broom of black hair sprouting from his big head.

The man glanced up from studying an equipment of globes, vacuum tubes, and projectors. He gave a taut smile.

"I think we're ready, Mr. Brant. The actual production of atomic force is achieved by etherial waves which are generated by vibration projectors. These incorporate a certain wavelength which shatters the molecular structure of matter and releases the—"

"Be damned to that!" Brant snorted. "I'm no scientist. How do we make bombs? *That's* what I want to know!"

"It won't be difficult," the scientist responded. "A shell made of copper can be fitted with a small detonator apparatus. The moment the detonator impacts with anything it will momentarily release the required vibration through the shell, which will of course transform into free energy. I have the men making a small shell and detonator right now. All they want is the exact wavelength for incorporation in the apparatus. I think I have it. I've rigged up this makeshift projector to find out."

"Then get busy, man! What are we waiting for?"

The physicist nodded to the tiny grains on the receiving plate of the apparatus. "I'm going to disrupt those," he said briefly. "If Bradfield's calculations are right they will explode with plenty of violence, but the plate underneath will be untouched. I have got an insulating current running through it. You see, there is a wavelength which can protect as well as destroy, and—"

"Endicott, I pay you to show results, not to lecture," Brant broke in, with ominous calm. Then he glanced at the reddish dust in some perplexity. "You don't expect to get anything from this, do you?" he demanded. "What is it, anyway?"

"Copper dust." Endicott smiled grimly. "I fancy you will be a trifle surprised. Just stand back—all of you." He glanced across at the other technicians. "Ready, boys?"

THEY nodded, and got their distance. Endicott closed knife switches, his eyes on the receiving plate. Brant watched uneasily as the multiple tubes glowed brightly, as the lenses of the roughly erected projectors shone with unholy luminance—

Then suddenly all the men were slammed back against the wall by a blinding flash of light and stunning concussion. Noise struck deep into their eardrums, scorching wind singed their eyebrows and hair.

When finally the balls of fire had receded from before their eyes they found themselves staring at an apparatus in total ruins, a mass of twisted girders and broken plates.

"My God, what power!" Brant whispered. "It's unholy! You actually mean, Endicott, that that explosion came solely from that copper dust?"

The scientist nodded: he was looking thoughtful.

"We've got the wavelength all right, but we've also proved something else. I had hoped we could devise an atomic force projector to disrupt cities on the death-ray principle, but this shows it cannot be done. The projector itself shatters. Bradfield had a system of his own for manufacturing a metal impervious to the release of atomic force with which he intended to build generating plants. Those details are not given in the formula."

"I don't want projectors anyway: I want bombs," Brant breathed, clenching his fists. "I want the power to smash a city with one bomb, to hold a threat over the world. Eh, Van Rutter?"

"I am wondering," the arms king said, "where you intend to drop an experimental bomb? I presume it will be from an airplane?"

"Naturally." Brant gave a triumphant grin. "I have been planning again. We could drop our bomb in the ocean, only it might attract attention. Suppose though we dropped it near, or even on the mine workings where friend Bradfield met his death? Those old workings blow up now and again from fire-damp. One explosion more would not be considered strange, and at the same time we'd eliminate all traces of Bradfield who is lying, so Vanson told me, at the bottom of shaft number one. Simple, isn't it? And quite deserted around there too."

"Depends on the size of the bomb," said Elford, with a significant glance at the shattered apparatus.

"About half an inch diameter," Endicott remarked. "That will be ample for a test. Now I know the wavelength I can have it finished in another three hours."

Brant gave a slow nod and looked at Elford. "See to it that a plane is ready in three hours," he ordered. "A small bomber from my own flying ground will do. To carry four. . ."

IT WAS late afternoon when Sheila Carson reached the lonely road leading to the garden city suburb. She walked slowly, watching keenly as she went, but the landscape remained undisturbed. On one side of her was the high grass bank: on the other the field with the mine workings. Footprints there were none: the road was too full of hard ruts and clinkers for that.

For half an hour she wandered on. An hour went by— Then she paused, having covered perhaps a mile and a half in the time. Her gaze fixed itself to a piece of fabric clinging to the spike of the barbed wire fence bordering the mine field. In another moment she snatched it free, turned it over in her hands. Blue cloth? She recalled Dake's overcoat of the night before.

With a racing heart she looked around her, then finally toward the mine workings. Stooping, she eased herself through the fence and raced across the intervening stretch of muddy field, following as she went the heavy imprints of a man's boots. Heavy because he had carried somebody? It was a hunch far closer to truth than she realized.

But when she reached the mine workings it was a different matter. The skeleton towers of wood and steel loomed all around her. There were monstrous pyramids of disgorged earth, treacherous seams and crevices. She moved warily, calling as she went.

"Dake! Dake! Oh, *Da-ake!*"

That there was no reply did not deter her. One by one she looked down the deep shafts of the abysmal mines into the darkness at the bottom, until she picked up the footprints again and found them leading to a shaft somewhat separated from the others. With a vague giddiness rolling round her head she peered into the pit, hesitating. She knew she had found the right shaft, that Dake was possibly at the bottom of it despite the fact there was no answer to her call. But had she the nerve to venture down there, alone and unaided by rope?

It was as she stood there debating that a beating hum crept into her ears, growing steadily louder. In vague surprise she glanced up, frowning as she studied a small fast bomber flying directly over the mines, circling to keep them objectified. Though she was already practically concealed by the mine's tower

some inner premonition warned her of danger. Gently she moved into the massive shadowed protection of a girder, stood watching interestedly.

She did not have to watch for long. Unexpectedly, she seemed to be suddenly flung in the midst of hell! The world in front of her opened up in blinding fire as the clear field just beyond the workings was riven with explosion. She was flung off her feet and hurled backward like a rag doll, landed face downward amidst earth and rubbish, her ears singing with the roar of the concussion. Heat and choking fumes swept round her. Earth and stones came down in a deluge, most of it prevented from falling on her by the solid mass of the tower. Then the world was silent again, silent except for the drone of the plane.

SHEILA moved slowly, raised her face and looked cautiously about her. Where open field had been was a crater some twelve feet wide and perhaps eight feet deep. She got slowly to her feet, wiggling her fingers in her ears to clear them again. With weak knees she tottered forward, stopped at the edge of the working and stood well concealed, watching the airplane come swiftly to earth near the crater. It taxied for a moment, then the pilot reduced the engine to a tick.

"Marvin Brant!" Sheila whispered incredulously to herself, as the first figure climbed through the opened doorway. She would know the steel magnate anywhere. She pressed herself into deeper concealment as Secretary Elford followed. Van Rutter and Endicott she did not know: but in any case she had seen enough.

"Lovely! Lovely!" Brant's thick, ecstatic voice carried quite clearly in the still air. "From a bomb half an inch wide we got this! Just think what a ton bomb could do! Van Rutter, we can master the earth! We've got everything tied up in bows."

There was silence for a moment as the group studied the crater, then the plane's pilot came ambling forward. Brant swung on him suddenly.

"Say you, why the hell didn't you drop that shell right on the mine shaftings as I told you? According to Vanson, Bradfield's body is in that first shaft there. Why didn't you drop the bomb on it?"

"Sorry, Mr. Brant. I guess the thing was so darned tiny I had my aim all wrong."

"O.K., maybe we'll try again later," Brant grunted.

"We'd better get out of here," Van Rutter remarked abruptly. "Some of those people from the garden city will start blowing along if we don't. We can say we saw the explosion happen, of course, but I'd sooner keep in the clear. Let's go. Satisfied, Endicott?"

The scientist nodded. "Quite. I know now that these bombs will smash earth, rock, and metal. The rest is simplicity itself."

The men turned back to their plane. Sheila remained in her position, watching as the propeller started up again. Only when the plane had climbed far into the sky and disappeared toward New York City did she dare to move. Her eyes were narrowed bitterly.

"So it was Elford who stole that formula—for Brant! All right; now *we* know what to do."

Springing from her concealment she hurried across the field to the road as fast as her still shaky legs would take her. Half an hour or so later she was in a taxi being whirled to the Science Association.

Dr. Carson listened in grim silence as she told her story. If he needed any proof at all the girl's dirt-caked clothing and frantic eyes were sufficient.

". . . so Dake's down the first shaft," she finished hoarsely. "Vanson is a wrestler or something: I've heard of him before. Dad, we've got to get Dake to the surface. By myself I dared not try."

"No, of course not." Carson compressed his lips. "So it is Brant at the bottom of all this, eh? It's one thing to know he is responsible, but decidedly another to prove it!"

"But—but I *saw* him and those others drop that bomb! At least we can have Vanson arrested."

Carson shook his head slowly, his face serious. "Brant is the most powerful man in this city. You can be assured that Vanson is under his protection. He'd get him freed instantly. We're dealing with a man who is utterly ruthless, Sheila. He can crush you, and me, the whole Association, without effort. No, we've got to think very carefully before we act. However . . ." Carson got to his feet briskly "I'll notify the authorities and let them worry over it. For our part we'll get over to the mine with equipment right away. While you get changed I'll gather the boys. Be ready in fifteen minutes."

IN HIS own office Marvin Brant was smiling complacently as he regarded Elford and Van Rutter.

"You know what to do Van Rutter?"

"Of course." The arms man thoughtfully regarded the photostatic print of the atomic force formula, then slipped it in his brief case. "I'll have every available factory in my European ring working at full pressure right away. After that it is simply a matter of loading the planes with bombs. Five hundred planes carrying no insignia are already waiting at the European underground base."

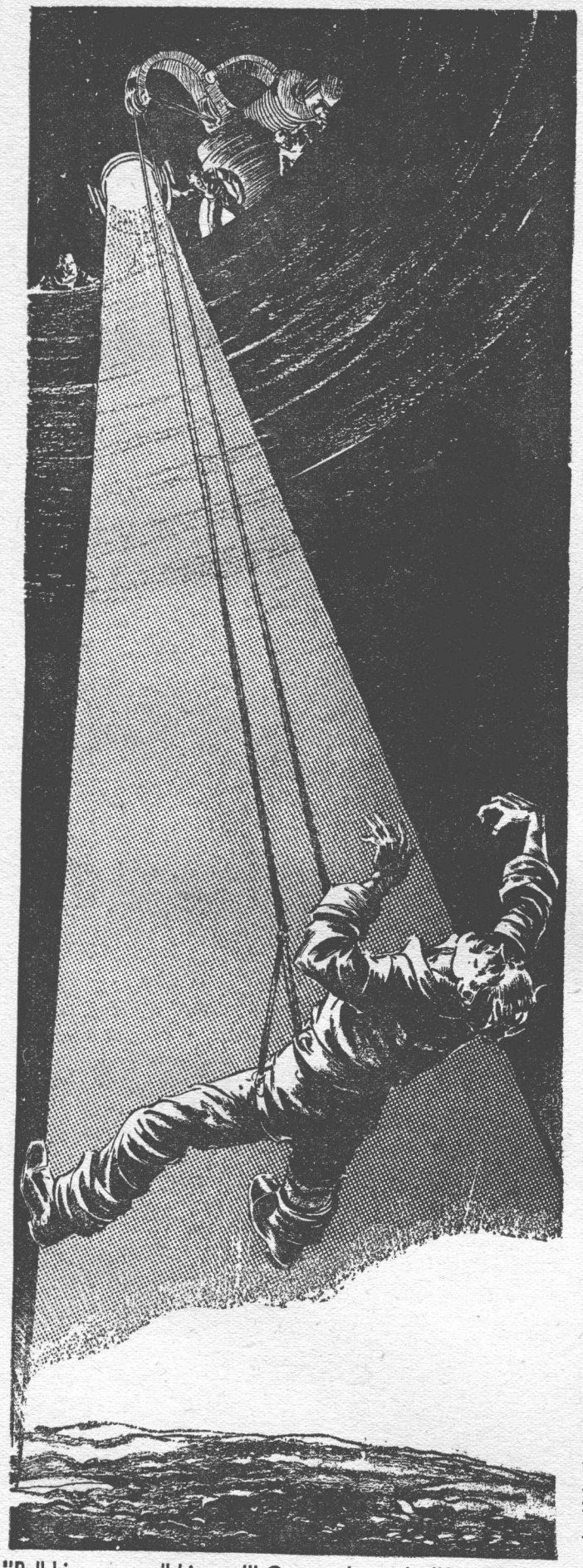
"Good!" Brant's eyes gleamed. "You, Elford, will work in conjuction with Endicott and see to it that bomb manufacture goes right ahead. We go into action in seven days . . ."

CHAPTER III

The Phantom Avenger

THE autumn dusk was closing down when Dr. Carson, Sheila, and the workmen arrived with their mobile van at the mine workings.

Carson remained silent as the girl pointed toward the crater in the dying light, then she turned eagerly



"Pull him up—pull him up!" Carson shouted. "Something's happening down there!"

and flashed on her torch, pointed to the heavy footprints leading to the first mine working.

Carson stared into the black, windy depths and stroked his chin. Then he glanced around the landscape.

"Better lay off the searchlight for the moment, boys: we don't want to attract attention if we can help it. O.K., Hurst, let's get started."

The gang boss nodded, signaled to his boys. Between them they slung a thick rope out into space, fixed it quickly to a pulley, let the free end hang over the shaft. Followed a snapping of clips and a cradle was in position.

"I'll take it," said one of the men briefly, a broad shouldered giant in corduroy. He settled himself in the cradle, switched on his torch, then gave a nod. The winch on the truck started to unwind the rope slowly.

Leaning as near the edge of the shaft as they dared Carson and the girl watched anxiously as the torch light went bobbing into the emptiness below. It became remote, vanished at last as the man's body presumably hid it from sight.

"He's a long time," Carson said at last, uneasily—then the words were no sooner out of his mouth than from the shaft there came an unearthly, echoing scream— a scream of mortal anguish followed by heavy silence.

"Say—what in hell was that?" whispered the foreman huskily.

"Pull him up—pull him up!" Carson panted, recovering himself suddenly. "Quick, man!"

Instantly horny hands tugged on the rope winch handle. After twelve turns the dead weight in the cradle came sprawling like a sack of coals over the shaft edge. It was the laborer all right, gasping and choking heavily.

"What's the matter, man?" Carson shouted, seizing him. "What went wrong down there?"

The man breathed erratically, swallowed air in great gulps.

"Something—something horrible down there, Doc. Like—like bayonets going through my heart. I guess —I fainted—"

"Was Dake Bradfield there?" Carson demanded.

"No—the shaft's empty. . . ." The man stopped, made a twisting motion, then relaxed. In horrified silence the group glanced at one another. Then Hurst stepped forward and took the man's pulse.

"He's dead, chief," he said soberly, glancing up.

CARSON'S jaw set. "A man of his strength killed by something we do not understand, and no sign of Dake in the shaft. Listen, Sheila, either you were wrong in what you heard or—you are quite convinced you heard Brant say that Vanson had thrown Dake's body down this shaft. You are sure you *saw* Brant, Van Rutter, and the rest of them?"

The girl nodded wearily. "Of course! Let's have the searchlight down the shaft. We should have done

it at first."

Carson nodded to the waiting Hurst. The dead man was gently lifted onto the truck, then the searchlight swung into action, poured its blazing beam down the shaft. Motionless, the party gazed to the bottom of the length. The light reflected slightly from soft mud.

"There are ruts all the way up the shaft," Hurst remarked at length. "A guy *could* climb up—"

"Don't talk rubbish!" Carson snapped. "Dake Bradfield was dead."

"But suppose he wasn't?" Sheila put in quickly. "That soft mud would save him from injury if he fell slackly."

Carson stood brooding. Hurst said, "Well, he ain't there anyway. What's next, chief?"

"I wonder what he means by bayonets through his heart?" Carson's keen eyes wandered to the position of the bomb crater in the darkness.

"You boys stay here," he said suddenly. "Kill that searchlight and wait for me. I'm going back to headquarters for some instruments. Whatever killed Mason must have a scientific explanation, and I think it just possible that bomb crater may have something to do with it. Come Sheila."

He turned swiftly towards the car parked next the truck.

VANSON, the Manhattan Strangler, put the finishing touches to his bow tie, patted his tuxedo in satisfaction, then turned from the dressing table mirror. Humming through his heavy, scarred lips he walked briskly into the comfortably furnished lay-out of the drawing room. This uptown apartment did not match his personality, but what of it? It was a good joint to bring a blonde to.

He turned to the wall-safe, twisted the combination wheel, took out a wad of currency.

"A thousand smackers for bumping a guy off with a piece of sash cord," he said slowly. "Brant sure pays well for service—and did he get good service!" He flexed his vast shoulders, stuffed the notes in his wallet, then glanced at his watch. In ten minutes he was due to pick up Daphne Gibson. Then—

He grinned in anticipation. Daphne wasn't too tough when a guy with money wanted to do a spot of necking. Supper uptown, then back here. . . .

Humming leisurely again, Vanson shut the safe and ambled over to his hat and coat, put them on with the air of the gentleman he fancied he resembled. He moved to the main door, then stopped at a sound behind him. Slowly he turned to look at the cause of it—and if Vanson had never known fright in his life before he certainly knew it now.

A motionless figure stood in the doorway leading to the bedroom—a figure in a torn, clay-caked suit, a figure with dark hair trailing down over his ashy, merciless face. There were eyes watching from that face, eyes that did not blink, eyes of piercing blue that took account of every move. The mouth was one straight line, unyielding and inflexible.

Slowly Vanson's horrified gaze traveled to the apparition's hands. They were level, and apart, holding a length of sash cord between them.

"Dake Bradfield!"

The words belted from Vanson's lips by the sheer force of the terror behind them. He stumbled backward for the door, fumbled with the knob, fished for the key. The door was locked, being the outer one, and somehow that key failed to work in his paralyzed fingers. All the time he kept his eyes fixed on that figure. He could feel sweat pouring down his face.

"Why did you kill me, Vanson?" the figure asked at last, in a cold, brittle voice—and at the same time he advanced with soundless tread, the cord dangling from his fingers.

"I—I didn't!" Vanson shouted hysterically. "Now listen, get this straight! Give me a break, can't you? I—"

"You killed me, Vanson, for a thousand dollars," Bradfield said, in the same dead level voice. "I heard you say so when you took your money from the safe. I came through your bedroom window. You killed me, Vanson, and now I'm going to kill you. Simple, is it not?"

"But—but you can't! You died! I—"

Vanson broke off and made a dash for it, but that was his undoing. The cord dropped suddenly round his bull neck and pulled taut. He twisted, lashed around with a ham of a fist, but another like the bumper of an automobile crashed into his jaw and sent him reeling.

He fought helplessly against relentless, overpowering strength. His muscles seemed like putty against the man he had killed. This strangling cord. . . . As he reeled into darkness he saw that gray, unsmiling face watching him.

Bradfield left the cord where it was round the Strangler's neck, went out silently the way he had entered.

IT was midnight before Dr. Carson finished his experiments with a battery of instruments at the mine working. His face was perplexed in the light of the moon.

"I don't understand it!" he declared worriedly. "The instruments show that some kind of powerful radiation is prevalent in the bottom of the shaft. But it doesn't fit into any classification I know of. I thought at first it might be the emanations of radium, that there might really be radium deposits down there. Now I realize I am wrong."

"Then Mason got the full force of this radiation?" Hurst asked quickly.

"Yes: none of which explains where Bradfield has vanished."

"What—what do we do now?" Sheila asked anxiously.

"What *can* we do?" Carson turned disconsolately to the car. "All I can do is turn these instruments over to the Association for examination and see if they

can analyze anything. The police will have to try and solve the mystery of Bradfield. Come, my dear. It's no use standing moping here. Besides, we're in danger all the time we stop here. Brant and his men might come along—

"All right, boys, pack up and let's get home."

Sheila turned slowly away, too miserable to speak a word.

HENRICH VAN RUTTER stirred uneasily in bed, aware of a distant strident noise. By degrees wakefulness came to him: he switched on the light and squeezed his eyes at the telephone, lazily lifted the receiver.

"Well?" he yawned into the mouthpiece.

"Van Rutter? Say, something terrible's happened!" The urgent voice of Marvin Brant at the other end of the wire was sufficient to spurt the arms king into alertness. He stared at his watch—2:20 a.m. What the hell did the big fellow want at this hour. And as he thought, he listened.

". . . and Vanson has been killed, strangled with a piece of sash cord. It's serious, Van: somebody's onto our plans."

"Needless worry," Van Rutter growled. "Probably some pal of that ape's that had a grudge against him—"

"Then why was he strangled in the same manner as Dake Bradfield?" Brant demanded. "Suppose Bradfield didn't die after all? I only got the news a little while ago. A dame called Daphne Gibson rang up and asked me for help. She was found at Vanson's apartment and the police are holding her. I'll help her, of course. She wouldn't have the strength to strangle Vanson anyway."

"And what now?" Van Rutter asked, with ominous calm.

"We've got to hurry things up, Van. You were planning to start for Europe tomorrow, weren't you?"

"Correct. Everything to be ready in seven days."

"We've got to alter that," Brant said grimly. "You must leave for Europe within the hour, and we want action before seven days. How soon can you make it?"

"I can have a hundred bombs manufactured by sundown tomorrow if I get my factories on double shift. A hundred can do plenty of damage for a first warning. The rest can follow for the attack proper."

"O.K.!" Brant sounded relieved. "Hop to it, and let me know how you make out. I'll increase the shift on my own production too."

Van Rutter hopped out of bed, yelled hoarsely for his manservant. . . .

AT the other end of the wire, Brant sitting up in bed like a vast porpoise in a vividly striped pajama suit, dialed another number with frantic haste.

"Elford?" he snapped, as that calm voice answered him.

"Yes, Mr. Brant. Anything wrong?"

"Plenty! I have an uneasy feeling that Bradfield isn't dead after all. I've no time for details now; I'll tell you tomorrow. Where's Endicott?"

"Home. I'm supervising the shift."

"Get Endicott and tell him the shift's doubled. Press every available scientist into action. We want bombs in half the time we planned. Understand?"

"Right!" Elford rang off without further questions.

"Good man, Elford," Brant muttered, lying back on the pillow and meditating. "Knows how to keep his trap shut."

He switched the light off and composed himself for slumber again. But somehow he could not doze off; his mind was too active at this sudden upset in his plans. He opened his eyes again and lay looking at the long oblong of moonlight cast through the unshaded window.

It was perhaps fifteen minutes later when he saw the moonlight dim before a shadow—the outline of a man's head and shoulders. He lay rigid, listening, heard the window catch slide back gently. Through his eyelashes he watched a figure jump softly down into the moonlit area and stand watching him.

Stealthily, Brant's hand crept under his pillow and closed on the revolver that always lay there. Then in one movement he whipped the gun level and fired—the figure did not budge for a moment, then it came through the smoke of the discharge, switched on the bedside lamp, and stood glaring down with unholy calm.

"Bradfield!" the steel man gulped. "Then my guess was right!"

Bradfield said nothing, but his hand shot out abruptly and whipped the gun from Brant's hand, sent it spinning across the room. That done, he wrenched free the telephone wire from wall and phone and swung it gently between his hands. Brant lay watching with his eyes popping.

"At your orders," Bradfield said slowly, "Vanson strangled me with a piece of cord and threw me down a mine shaft. For something like fifteen hours I was dead! *Dead!* Then I came back to life. How, is my business. Of all the men that have ever died, Brant, one came back—and that one is me! I have many things to do, but vengeance comes first. I have killed Vanson; I shall kill you. Then Elford, then Van Rutter. One by one!"

"Wait!" Brant exclaimed, his jowls quivering. "I'll give you back the formula. It hasn't been used yet." He thought swiftly of Van Rutter's photostatic copies. "I'll—I'll give it back to you and a million dollars in cash. That's a fair bargain!"

"You consider that fair recompense for seeing beyond the grave?" Bradfield's voice contained an awful, chilling solemnity.

"Two million then—anything you want!" Brant was sweating visibly.

"Anything?"

"You have only to name it!" Brant cried, hope flooding his ashy visage.

"Very well, I will. I want your life!" And with that Bradfield's hands suddenly shot out and whipped the telephone cord round the magnate's neck. It tightened with irresistible force.

"Now you know how I felt, as I died," Bradfield whispered. "It got tighter—and tighter, like this, until. . ." He left the cord knotted and watched the final threshings of the gross form amidst the bedclothes. That empurpled face with its starting eyes was not a pretty picture.

"At this moment it is a cleaner, sweeter world for being without such as you." Bradfield spoke to the dead man calmly, then he glanced up at a sudden hammering on the door.

"Mr. Brant, are you all right, sir? I heard a shot a few moments ago. Mr. Brant—"

Bradfield turned, glanced toward the buried bullet in the window frame whither Brant's lightning aim had sent it, then he moved to the window and slid out gently into the night.

"Van Rutter. . ." he mused as he dropped to the grounds.

THE newspapers next morning carried a conglomeration of news, most of it under the heading of—

MARVIN BRANT MURDERED

All over America people read of the magnate's death at the hands of an unknown slayer. The parallel case of Vanson was quoted, but not played up. Some people were sorry to hear the news—Brant's financial friends mainly—but everybody was disturbed by the hints contained in the general write-up.

> ". . . and according to our European representative's information, received only an hour ago, the death of Marvin Brant will have wide repercussions. It is not even improbable that International complications may develop between this country and Europe. Henrich Van Rutter, the eminent arms king, hinted at possible complications in an early interview this morning when he landed at Paris airport to attend to financial matters precipitated by Brant's death. It is thought. . ."

So it went on, until most Americans realized that the death of Marvin Brant was to mean far more than just that. His interests were so far reaching, so complex.

Sheila Carson, haggard from a restless night, burst into her father's office during the morning, waving the newspaper in her hand.

"You've read this, dad?" she asked breathlessly, and he nodded gravely.

"Long ago, over breakfast."

"It's Dake!" the girl cried, her eyes wide. "I—I can sort of feel it inside me. Brant and Vanson both died the same way as Dake, and since we couldn't find Dake it proves—"

"It might prove that the man who murdered Dake also murdered Vanson and Brant," Carson said quietly, then at the girl's troubled look he came round the desk and gently put an arm round her shoulders.

"You've got to think clearly, Sheila," he went on gravely. "Don't get hysterical notions because you want them to be true. I realize what you're thinking —but I've been thinking a bit longer than you. It cannot be Dake because he was killed and nobody can come back from death. Certainly this strangler has done us a good turn by killing Brant—but there's an even more dangerous enemy in Van Rutter. In that newspaper it says he went to Europe to settle up Brant's affairs. Brant, according to the police, was strangled at 2:40 this morning. Van Rutter, however, caught the 3:00 a.m. express air liner for Paris. He could not have known of Brant's death when he started off, as he'd have us believe. He must have got news over the radio as the plane flew and altered his story to match up with it in Europe.

"So why did he *really* go to Europe? An arms king does not go there at such frantic short notice without grim meaning behind it. We can assume he has the atomic force secret in his possession, that he went under the orders of Brant. All of which means trouble with a capital T. For one moment I dared to suspect that *he* had killed Brant until the time discrepancy showed he couldn't have done it in the time. The airport authorities cleared that up very quickly."

"Elford, perhaps?" Sheila mused: then she shook her head firmly. "No, dad, it was Dake! Call it intuition, but I'm convinced—"

She broke off and waited as the desk buzzer sounded.

"Well?" Carson said brusquely.

The girl's voice in the outer office was nearly a whisper. "There is a strange man out here who says he must see you, Dr. Carson. He has got sticking plasters on his face and dark glasses. Says the name is Mr. Brown."

"Brown?" Carson frowned. "Oh, send him away. I'm too busy right now to—"

"He says he can tell you about Marvin Brant."

"He can! That's different. Show him in. . ."

SHEILA and Carson stood watching curiously as the individual with the dark glass and long overcoat was admitted. He waited until the door closed, then swiftly locked it. Rapidly he pulled off his soft hat, glasses, and plasters, revealed his face in all its ashy whiteness.

"Dake!" Sheila screamed, springing up. "Oh, Dake, thank God you're safe! I—I—thought—"

"Quiet!" he commanded, as she flung her arms about him. "I don't want to give myself away. I'm just Mr. Brown."

"I don't care who you are—you're safe," Sheila whispered, then she looked up surprisedly as he pushed her gently away.

"Not now," he said shortly. "That can come later—"

"So you were not killed after all?" Carson asked levelly.

"Well of course he wasn't!" Sheila exclaimed. "What more proof do you want than him standing here? Dake, you—you look ill. Did you hurt yourself getting out of that mine?"

He hesitated briefly, then said, "No, I guess not. That does not matter right now. My worry at the moment is that Van Rutter got away. I killed both Vanson and Marvin Brant last night, but when I went for Rutter he was missing. I've found since that he went to Europe. I might never find him there. Neither can I get at Elford, deep under the Brant building."

"Then you knew Brant was the one who tried to have you killed?" Carson said.

"I knew the facts from you and Sheila. When you were at the minehead I was close by, heard all you had to say."

"You let us go to all that trouble!" Sheila exclaimed, amazed. "That wasn't very—"

"I had no time to explain then," Dake broke in. "I set out to find Vanson and Brant. I may as well tell you I'm alarmed. From the morning papers I believe Van Rutter had some orders from Brant before I strangled him—and from the trend I'd say my stolen atomic force is going to plunge us into devastating war before many days have gone by. To find Van Rutter or Elford now and stop them is impossible. The only other course is to defeat this attempt at domination by scientific means. I only hope to Heaven I have the time."

"Time? For what?" Carson frowned.

Dake gave a start. "Nothing—just something I was thinking about. "He looked at the pair steadily. "I know you're puzzled by all this, but you're going to be even more puzzled when I tell you that I *was* strangled. I died. For fifteen hours I lay dead at the bottom of that shaft, and then—*I returned to life!* I cannot describe it. It was both horrible yet fascinating, like awakening from a long adventure in a strange land."

He stopped. Father and daughter were staring at him blankly.

"It—it isn't possible!" Sheila stammered, white-faced.

"It happened," he said gravely. "And while I was dead I saw and heard so many things. Learned so much. Some day you will know. . ." He stared in front of him: for a moment he was a man apart.

Then Carson said slowly, "Is it possible that that atomic bomb crater had anything to do with bringing you back to life?"

"Maybe." Dake listened attentively as the doctor went through the story of Mason's strange death and the ultimate recordings of the instruments.

"Is it possible," Dake mused, "that atomic force has other powers of which we never even dreamed? The power of life and death? While I was dead I gained knowledge, enough knowledge, to work out all the powers of atomic force, given time. Since you made instrument recordings the task won't be so hard. My return to life must have had something to do with that bomb. I'll find out . . . if I have the time."

"Dake, why do you keep saying that?" Sheila asked, stirred by an uneasy premonition.

He did not answer. Instead he said, "We must prepare, Doc. I want the full run of the laboratories to put certain ideas into effect. The staff will help us whilst maintaining secrecy. We face a very real danger from Van Rutter. Strange indeed if the dead defeat the living! For such it really amounts to."

He turned, donned glasses and sticking plaster again.

"I'm waiting, Doc. How soon do we get down to the lab?"

"Now," the scientist answered quietly, and glanced mystifiedly at the girl. He fancied he saw a faint horror in her eyes, a horror that her waxen smile could not entirely hide.

Death had changed Dake Bradfield in some subtle, unexplained way. He was unquestionably a man from Beyond. And marriage? The very idea of it seemed completely forgotten.

CHAPTER IV

Cataclysm

PARIS saw them first, against the wild autumnal sunset. Out of the silence of that fateful October evening came a low droning note, at first attracting no attention, then gradually establishing itself in the senses as a very definite thing—the roar of airplane engines. The frontier posts of France, always manned, became sudden hives of industry. Alarm gongs rang throughout the mighty entrenchments of the Maginot Line.

Fifty unknown airplanes heading toward Paris in V-formation from the direction of Russia! By radio the news flashed to Paris headquarters. Possibly undeclared war from somewhere! The reports became an expanding ball of frenzied warning reaching to all parts of the world.

Russia, the mighty, the mysterious, evolving unknown plans through numberless years, had decided to strike. The planes *must* be Russian. The planes of every other country were recognizable. Paris waited, warned in five minutes of the approaching horde. Not very many people were concerned. Possibly it was a trial flight by somebody or other; somehow frontier laws had been violated. As for a possible attack, nobody believed it. The French authorities went about the task of demanding inquiry from Russian headquarters.

Air-raid warnings sounded in Paris. Antiaircraft guns swung to the defensive. Searchlights penciled through the twilight. If it was a mistake it would be good training, anyway— But it was no mistake! In another fifteen minutes, flying at bombing height and

with a velocity making them difficult to catch with the hastily manned guns, the planes arrived.

No air raid in military archives, no earthquake in history, could match the fifteen minutes that followed. Three shells dropped simultaneously and Paris lifted right out of the earth! Endless miles of brick, steel and concrete lifted in crumbling ruin to the skies, fell back in a thundering deluge of debris. High quarters, low quarters, business and suburban regions. The whole lot went up in blinding explosive fire under the impact of atomic force. Nor did it end there. A cataclysm followed as the English Channel raged over the ruptured land and pounded a new coastline where Angers and Dijon had formerly stood.

The horror, the incredible violence of those bombs, was something defeating imagination. Three bombs, no more, and half France ceased to exist. There were no survivors. The people were destroyed before they realized what had happened to them. And those of other countries who had felt the earthquake concussions only had a glimpse of planes returning toward Russia as genuine night began to fall.

The world waited, stunned. But the wait was not for long.

AT 10:00 p.m. a radio call on an unknown wavelength swamped the frantic yammerings of newscasters. A voice spoke with clear-cut decision. England heard it, and America, and in other countries interpreters went to work. Hardly anybody in the world did not hear that voice.

In the laboratories of the Science Association, Bradfield, Sheila, Dr. Carson, and the assembled scientists stood listening in grim silence.

"I address this communication to the respective Governmental heads of every country in the world. All of you have seen what happened to France. That country, as a country, has ceased to be. I have power such as no man has ever known before. I can destroy, ruthlessly: but I can also build. I have no intention of destroying anything further for the pure sake of it. France was used as an example. Here is my ultimatum—

"Each country individually will resign its existing form of government and surrender unconditionally to me. Who I am will be revealed in due course. You may rest assured that my rule will be one of progress. If my ultimatum is accepted, agents will make themselves known at a specified time. They will complete the legal negotiations. If the ultimatum is refused, remember France!

"You have until midnight on Wednesday, four days hence, to decide. Broadcast your decision: I shall hear it. A last warning—any attempt to find me will result not only in the destruction of the investigator, but in the annihilation of the country he represents. That is all. Think carefully."

The communication ceased. Dake reached forth his hand and switched off, then gazed on the morose assembly.

"Obviously Van Rutter," Carson said finally.

"And if that massacre he pulled in France is any guide he means it too," Sheila exclaimed. "He must be an idiot, though: he might know that no Government will accede to a demand like that. The world is armed to the teeth anyway. There'll be the most unholy war over it."

"Four days," Dake mused. "I just wonder if it's possible for me to do it in the time?"

"Do what?" Carson's voice was clipped with impatience. "Even if we manufactured similar atomic bombs we'd only create havoc just as bad. He's got us cornered, Dake."

The scientist paused as he saw Dake smiling, that cold infinitely superior smile.

"There are some things about atomic power which Van Rutter does not know," Dake said slowly. "And there are some things about science which I never knew—until I died. I thought when I had found how to release atomic force that I had discovered the mightiest of powers. But what I learned beyond death showed me that I had but unfastened the first of many doors, leading to deeper and more formidable forces, basic universe strata."

INVOLUNTARILY Sheila Carson gave a little shiver. There was something eery, overpowering, about the inhuman calm Dake radiated. There was something frightening in his constant reference to after-death experience.

"Just—just what are you getting at?" Carson questioned.

"I found spatial power . . ."

"Seem to have heard of that some somewhere." Carson thought for a moment. "Theoretically, of course."*

"You're right," Dake said, with a quiet nod. The first man to moot spatial power was Aristotle. "But Soddy slightly enlarged on the original theory."

Carson laughed shortly. "Some use that is. Aristotle's been dead for centuries—since around 400 B.C.!"

"Did you ever stop to think how much his mind could have progressed in the time that has passed since then to the present day?" Dake asked quietly. "I met Aristotle—out there. I met them all—the ancients and moderns who have died—Sir William Barrett, Henri Bergson, Archimedes, Nicolas Carnot, Copernicus. Their bodies died, some recently, some centuries ago, but their minds have lived on, progressing into the vast forever. While I was dead I met them, found that the theories of each one had reached fruition in positive fact. But to them there was no way back with their knowledge: it was knowledge for space and eternity alone. To me, for reasons yet to be unearthed, life was given back again—and with it much of the knowledge of the men I met."

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*It was Soddy, in his "Matter and Energy," who said there might be another power of which we know nothing, from which electricity and other forces are merely offshoots.—Author.

There was an awed silence. Dake smiled reflectively.

"And I thought I was clever! To be clever, one must die."

Suddenly he seemed to lose his thoughtfulness and went on quickly, "Much of what Aristotle originally theorized you will not remember, but you will recall some modern scientists' elaboration of his theories. Some of them have said that one dominant radiation, or force, constitutes the entire universe. In its essence it is ether, but in its variable states—created by opposing and lesser forces streaming through its midst—it is altered slightly to form into matter, energy of tabulated sorts, life, and intelligence, all different expressions of the *basic* power, but none of them having that basic power's efficiency. No man can ever know what force *is* unless he understands what *ether* is, for ether is the father of force. In the beginning, there was only this streaming force. Opposing radiations created the planets and suns of the universe, begot that ultrasensitive radiation known as thought, which commingled with matter and gave it lie."

"You mean," said Carson slowly, "that space itself, the vast emptiness of the void, is really a monoforce, and that everything else is a warp in it?"

Dake nodded. "All scientists know of the theory: it was left to me to see it as a fulfilled practicality beyond death. It is the answer to power unlimited. It is the key to the universe, beside which atomic force is like a dry battery compared to a power house. What we call empty space actually possesses unbelievable power. And, even as certain radiations warped that space and coalesced to produce matter, so can other radiations destroy the coalescence and bring empty space back to its normal position.*

"Matter can be removed by using the counteractive wavelength that formed it in the first place. It was built up by wavelengths, and can be broken down by the same process."

"AND you think you can do this?" Carson asked unbelievingly.

"I know I can, because I have the knowledge of the dead. And when I have done it I shall first remove the Brant building and all its underground laboratories from the face of the universe. I shall make allowances for atmosphere and nothing more. Without fuss or disturbance the Brant Building will give place to clear air! Then I shall find Van Rutter."

"How?" Sheila looked puzzled.

"Atomic force gives off radiations which are detectable by a compass, even as ordinary radium gives itself away. It is certain that Van Rutter will have some measure of free atomic force in those concealed European laboratories of his. I'll find him."

"You are sure this idea has an advantage over atomic bombs?" Carson mused.

"Certainly. You saw what happened to France. Atomic bombs means ungovernable power—and I *mean* ungovernable. In making sure of two enemies we might destroy thousands of lives and create millions of dollars' worth of damage. Sheer force is our weapon. Besides, I have other uses for atomic force later—and other uses for even deeper principles of science."

"Sounds all right to me," Carson admitted at length, "even though I don't figure out how you're going to do it. What will you use for the power to generate these wavelength radiations of yours?"

"Atomic force!" Dake smiled. "A use for it which Van Rutter could never have found—nor any earthly scientist for that matter, unless he died and returned. From a tank of water I can generate enough power for my purposes, power which will pass through circuits and transformers until it has the wavelength which my mathematics will show as necessary to correct the particular matter-warp we are aiming at. The rest will be simple."

"But how long will it take?"

"It must take no longer than three days. It can be done with all of us working at full pressure. The instrument itself will be no larger than an ordinary searchlight. In the meantime, Doc, get in touch with the President and advise him to contact other countries and tell them to ignore the radio ultimatum, and to keep all news of such activities from the general public, so far as is possible. All we need, outside laboratory work, is a plane to be converted to transparency on all sides of its control room. I'll work out the formula for a transparent metal right away."

"Right," Carson said rather dazedly. "I'll—I'll see to it."

ACTING under the advice of the scientists, American Congress deliberately treated the ultimatum of the Unknown—for such Van Rutter was to all save the Association—with contempt. The same line was adopted by every other country, but behind the scenes every nation carefully marshaled its armaments pust in case. Even had the scientists not advised ignoring the warning, there would have been no concession to the Unknown anyway. The world was too well supplied with military equipment to give way before threats.

What Van Rutter and Elford thought of the defiance was not known, and certainly nobody was much concerned anyway. Clever propaganda had convinced the masses of every nation that the French affair had been a natural disaster, on which a European power—it did not say which—had cashed in in an audacious effort to get world control. Every nation disowned the unknown planes, Russia included. The whole thing was a trick. It was marvelous how the propaganda experts sweated blood to clear the air.

But in the laboratories of the American Science Association Dake Bradfield worked with unceasing effort, had the entire staff working day and night in

*Einstein himself has said that matter is a pucker or rumple in otherwise clear space.—Author.

shifts to help him. He seemed tireless, heedless of sleep, his mind always superhumanly keen, and his manner still retaining that hint of mystery that had been present with him ever since his return. To Sheila he was a complete paradox. That passionate love he had had for her before seemed to have vanished: instead she had become absorbed in the small army of workers he relentlessly directed.

Nobody had the remotest understanding of the scientific principles involved in the work they performed. They only knew that, in order, they created a metal as transparent as glass and tougher than tungsten, which was promptly molded to shape and replaced the ordinary metal body of a roomy, high-powered plane; that they rebuilt a radio transmitter-receiver to embody atomic force, which was put in the plane's control room; that the plane's engines were converted to use the power of tanks of water.

Then lastly they went to work on a device like a searchlight, fitted on universal bearings, its internal workings small but compact, utterly complex except to Dake's agile brain, containing all the necessary self-contained power to produce atomic force which afterwards passed through the mesh of apparatus for transforming it to the particular wavelength Dake would require. The thing was a miracle of engineering and scientific genius.

ON the evening of the third day the projector was finished, was mounted inside the airplane's transparent control room. The idea of the transparence immediately became evident to the others. By this means the projector could swing freely in any direction and pass its powers through the glasslike metal without disrupting it in the process.

But Dake was not satisfied even then. In between times he had been engaged on remodeling an ordinary compass. Now it stood among the equipment—an almost airless glass globe in the center of which was a needle, the whole being sunk in a mercury bath to ensure a perpendicular position no matter how the plane rolled. Evidently it suited Dake for he smiled grimly as he nodded to it.

"The first atomic force detector in the world," he murmured.

"You mean it will even detect atomic force from the air?" asked Carson in surprise.

"Its range is thirty thousand feet in any direction, and we shan't get that high up. It'll find Van Rutter as sure as if he signaled his presence."

Dake turned away, looked round on Sheila, Carson, and Jerry the pilot, seated at the control board.

"Guess we're all set," Dake said briefly, giving the door a final twist on the screws. "Sure you know how to handle this atomic power properly, Jerry?"

"A cinch," the burly aeronaut retorted. "With this new streamlining outside we'll do seven hundred an hour with ease."

"O. K., let's get started. First, the Brant Building!"

CHAPTER V

Universal Energy

WITHIN a few minutes the plane was sweeping over the vast, evening lit mass of the metropolis. The city lay below in all its compact huddle of mighty edifices, most of them already streaming with lights and night sky-signs. The sunset reflected pale pink in the waters round Manhattan Island.

Gaining altitude at length the machine turned eastward, made a beeline for the rearing mammoth of steel and masonry that was the Brant Building.

"Notice!" Dake said suddenly, as they came nearer, and he jerked his head toward the compass. The needle had steadied and was pointing directly at the building.

"We know that there must be some play of atomic forces going on in those buried laboratories there," Dake resumed. "Even if we did not know you see how infallibly the compass reveals it. The moment that needle is dead vertical we know that atomic force lies right below us. That's going to be useful for Van Rutter. First, though, we have this to attend to."

He turned and gripped the handles of his queer projector, swung it round until the sights were on the massive edifice with its multitude of lighted windows. It swept nearer—then Sheila gave a sudden exclamation as she stared through the transparent floor beneath her feet.

"Dake, what exactly are you going to do?"

"Reduce that building to primal space, blast a hole a mile deep under its foundations. There will be a free emptiness and air, with the buildings on either side untouched. I can measure this power to a hair's breadth—"

"But Dake . . ." The girl turned and seized his arm. "Dake, do you realize there are thousands of employees in that building? You can't destroy them too! They're innocent—"

Dake's face set implacably. "If I don't destroy them and the building I don't destroy Elford and the laboratories. I leave a source of deadly munitions untouched. In the end thousands, even millions, will die instead of the few hundred in that edifice. Out of the way, Sheila, please!"

She looked her horror even though she obeyed. The streak of ruthlessness in Dake's nature secretly appalled her. She looked below her again, for a moment caught something of the tenseness of the situation as the giant building became the sole focal point through the floor. The street in front of it yawned like a light dotted chasm. Sheila clutched her father to steady herself.

"Now!" breathed Dake suddenly.

He closed the power switches. The effect of projector's strange vibration was not immediately evident.

From top to bottom the Brant Building became

insubstantial, like the illusion of a dream world. It hung transparent, incredible, for a moment with the figures of people momentarily visible through the suddenly glassified walls—then with staggering abruptness the whole 1,000-foot mass snapped into black extinction! Its very foundations changed to cavernous darkness. Where there had been the Brant Building there was nothing but an abysmal crater, sheerly cut. A yawning emptiness divided the two buildings on each side, both of them quite untouched.

"Stupendous!" whispered Carson. "No disturbance. Not a sound."

"Instant straightening of space warp, not a resolution of matter into energy," Dake said quietly. "That is why there is no noise."

"And thousands, or at least hundreds of lives wiped out," Sheila muttered. "People who had their lives to live, who had other people depending on them."

But her secret hope that Dake would show compassion was not realized. Instead he said gravely, "Hundreds against millions," and patted the projector lovingly. Then he glanced at Jerry.

"Head toward Russia!"

Sheila stood looking back at that yawning hole amidst the other buildings. Deep, unplumbed thoughts stirred through her mind.

IT was midnight, after a seeming eternity of flying, before the compass reacted over a vast, deserted stretch of land on the western frontiers of Russia. In silence the party stared down on bleak, unlighted darkness stretching as far as their view vould encompass.

"Down there," Dake said slowly, "is Van Rutter's hidden retreat, obviously underground. Planes and atomic force which he thought he could conceal, eh?"

He smiled twistedly, watched the compass needle tensely as it swung slowly to the vertical. Gently he turned the projector's nose downward. Then he slammed home the switches.

It was impossible to see what happened, but moments later the blaze of searchlights revealed a landscape riven like the Grand Canyon, the sides of the chasm sheer and smooth. From the remote depths came steamy bubblings of inner discharge. Whatever had lain there, whatever vast enterprise Van Rutter had controlled, had gone forever. Without a sound or light, extinction had caught up with him.

Dake laughed slightly, a hard bitter laugh that made the others in the control room glance at one another.

"Never before did I realize how sweet a thing vengeance can be," Dake muttered, serious again. "They showed me no mercy, and I in return showed them none."

"Well, the threat of war is destroyed anyway," Carson said thankfully. "What comes next?"

Dake glanced at him. "I shall make war instead."

"What!"

"Not exactly in the way you think. You'll see what I am aiming at before long. First, I have a radio broadcast to transmit to the world, hence our high-powered instrument."

Dake switched on atomic force-driven transmitter and waited a moment as the power surged through it.

"Enough power to swamp every other broadcast in existence," he commented in satisfaction. "Just as Van Rutter did. And since for all practical purposes I am going to broadcast from the approximate spot he used I shall *be* him, with a change of plan."

Carson and Sheila said nothing, but like Jerry at the controls they frowned in some mystification as Dake pulled the microphone to him and spoke in a passable imitation of Van Rutter's voice.

"Governments of the world! Your ultimatum would have expired at midnight tomorrow night. But due to your continued silence I have decided on certain amendments, and I have given yet another proof of my powers by destroying the Brant Building in New York more completely than anything was ever destroyed before. Again I say I do not want actual bloodshed. But I shall cripple your power to attack me! Your secret armament factories, your hidden zones of destruction, will avail you nothing. Your one alternative to save yourselves from me is to destroy your weapons of war voluntarily and relinquish control to me. I shall expect a radio response within thirty minutes. If you refuse, then prepare for the worse! If you accept, I will advise you further. That is all."

DAKE switched off, stood reflecting.

"Just what is the idea?" Carson demanded. "Seems to me you might as well have let Van Rutter get on with the job! You're just as bad!"

"You do me an injustice," Dake said quietly. "Van Rutter intended to launch ruthless massacre against the peoples of the world in the hope of frightening the rest of them into submission, over which, with the help of atomic power, he could have become self-appointed king. I have no such ideas."

"Then why imitate Van Rutter?"

"Because the blame for what is going to happen may as well be laid at the door of the man whom people call the Unknown, otherwise Van Rutter. He had already made himself the target, so people may as well go on thinking they're shooting at him." Dake stopped and then asked a surprising question. "In the old days, what did one do to get a fox out of his lair when all else failed?"

"Smoke him out, I guess," said Sheila. "So what?"

"Humanity collectively is the fox this time, which I am smoking out. How else can one find out where different nations' armament centers are without actual recourse to threat of war? Think of the countless secret hiding places which only possible war can reveal. The expectation of attack will make every nation tear down its camouflage. But for the advent of Van Rutter humanity would have thrown itself at each other in time in any case, from sheer necessity

of economic pressure and the need to *use* the vast weight of arms before they became white elephants. The arms would *have* to be used in order to get the money from another country—if beaten in war—to pay for them. One vast, vicious circle strangling progress which only a strong man with infinite power can break down. I am that man!"

"Go on." Carson was listening attentively.

"Well, don't you see that Van Rutter changed the situation? Instead of nations preparing to hurl themselves at each other they would have banded together against him. And, had he lived, he would have triumphed because of superior power. But if we still let the world believe he is in action we can draw them into the open, let them waste their activities on us—for they can't possibly harm us—and at the same time we will destroy their arms without actually injuring anybody, beyond those few we cannot avoid. In other words we'll draw the fangs and roots of war right out of the planet!"

"Destroy armaments for ever, tear down the barriers to reason and progress," Sheila whispered. "Oh, Dake dearest, that's wonderful— But just why do you keep up the pretense of Van Rutter? Why not reveal that—"

"Do you think any nation would feel kindly toward a power bent on destroying its arms, even if it knew it *was* the Science Association? No, Sheila—definitely no! We don't intend any harm, but we cannot make anybody believe that. It is better that fury be directed at a now extinct Van Rutter while the Science Association remains unsuspected. Of course, my ultimatum will be refused. I only gave it at all to keep up the illusion. Strange, but Van Rutter did far more for the peace of the future world than he ever intended."

"And afterward?" Carson glanced up morosely. "More arms, more build up, more conflict. It will take even more than you to destroy warlike notions in the minds of men, Dake."

Dake smiled, that same superior smile that seemed to make him like a god. "I have the knowledge of the dead, Doc, and with that so many, many things are possible." He pondered. "It all depends on whether I have the time," he ended slowly.

That oft repeated ambiguity was not questioned this time. Dake stood looking at the radio receiver, waiting. And his judgment was correct. Before the thirty minutes had expired the first answer came through.

Refusal! America would fight to the death! So would Great Britain, all Europe, the East . . .

Dake smiled. "O.K., Jerry. Home!"

ONCE more in the safety of the Association's laboratories, there was not a little grim amusement among the inmates, all of them in the know, as they watched the preparations of the world for battle with a still unknown and merciless attacker. The rumble of defensive movements spread across the earth in all directions. America too, mobilized all her forces. All unaware of the trick, the President called on the Science Association for assistance in this time of grave crisis. Carson gravely promised to do all he could.

Dake waited for a week, surveying through television and news reports the revelation of different nations' armament centers and fortresses. For his own part, in between times, he had a new plant installed in the plane which, using atomic force as usual, surrounded the flyer with an impentrable shell of energy. The plane was black, resembling those of the Van Rutter fleet. The glass center, though transparent from within was opaque from outside.

Beyond loading the plane up with ample provisions there was nothing more to be done. Dake gave the world four days to bring its toys into view, then as before, with Sheila, Carson, and Jerry he entered the plane at ten in the morning of October 29, 1980.

When Jerry had forced the plane to a considerable height Dake stood looking down on New York far below, surveying the centers of defense that had been contrived for the safety of the civilian population. He smiled, lowered the projector downward, sighted it on an antiaircraft unit near Times Square. He closed the switches.

That action was the spark that lighted the whole powder magazine. The swift, resistless changing of the Times Square unit into a bottomless pit started the American air fleet on the warpath. From north, south, east, and west they came in their droning, vengeful hundreds to do battle with this audacious individual who fancied he could rule the world.

Dake took no notice of them! He did not attack them. They either smashed their planes in pieces against the defensive energy shell or else, baffled by the mysterious powers of their adversary, turned tail with a view to conference with the higher-ups before going any further.

And Dake went on with his task calmly and steadily, flying at three thousand feet, tearing every armament and defensive dump out of the earth as he came over it, destroying people too where the margin was too fine for his selective instruments to avoid them.

In between the attacks he radioed warnings to the battle fleet gathered round the coast of the Americas. Either evacuate the ships within an hour, or be destroyed with them! Commanders hesitated, glanced up at that black speck in the blue, and wondered. They knew already they were tackling an invincible foe, yet one with a curious streak of mercy. They decided to evacuate.

Sure enough, within the hour the black speck returned. One by one, completely and mysteriously, thousands of millions of dollars' worth of steel and defensive equipment vanished from the water. The men in the little bobbing boats watched in dazed amazement, clung tightly to their seats as tumbling water came surging toward them. But they were unhurt.

THROUGHOUT the day Dake went on steadily, flying back and forth with stupendous speed across

the continent, constantly shattering everything of a warlike nature he came across. Time and again fleets of bombers harried him futilely. Their bombs bounced away harmlessly: some of the planes were sent crashing to earth or disappeared in mid air. This soundless primal power, the sudden straightening out of etheric folds, was something no man could tackle.

It was evening by the time they left American shores—left it a continent without a weapon, a continent filled with baffled millions who could not believe that the Unknown was content to leave them thus, disarmed but unhurt.

SO DAKE went on, on the most incredible conquest in history.

For a week the airplane never touched ground, darting back and forth across the earth, untouched by man's most demoniacal powers. And one by one, in every country, weapons and arms centers and potential battlefields and fleets were transformed into emptiness. Ships sank, planes disappeared. Not a country escaped Dake's ruthless toothcombing. In one week he swept the earth clean of every destructive device man had ever owned or known.

Only then, content that he had not destroyed a single life willingly, did he return unseen to New York under the shadow of night, went back to the Association laboratory. His first act was to get the radio-transmitters to work, cutting out the flow of world news—a world still dazed with wonder and still desperately afraid.

"Peoples of the world!" Dake said quietly into the microphone. "Get your interpreters to work so all may understand me. People, you have been tricked, for your own good! I forced you into the open with your popguns and pistols in order that I could destroy them. Realize one thing—The man who *would* have dominated you and performed inhuman massacre for his own ends, is dead. I killed him with an infinitely great power. Who I am does not matter: I have already proved to you I do not wish to harm anybody.

"But I *do* intend to bring to this world a peace it has lacked since the world began! I can do it because I know things no man ever knew before. You cannot stop me, not even the most warlike of you. *Nobody* can stop me! But I give you warning here—I am going to give certain orders to the ruling heads of each country, and those orders must be followed to the absolute letter. If they are not, I shall know of it and I shall destroy without hesitation. I will only be merciful if you obey. But your obedience is not because I intend to dominate you but because it is to your eventual advantage that you *should* obey. This is not an ultimatum: a man with infinite power makes no ultimatums. Now listen attentively.

"Marshal together your finest engineers and scientists: you will have two days in which to do this. At the end of that time your engineers will take down the instructions I shall give. In each country of importance there will be installed a vast atomic power generating station. It is a power which can advance civilization two hundred years and more. One man tried to abuse it: none other will ever do that again! You have your orders for now. Obey them or take the consequences—and if any man dares to try and create a warlike weapon in the interval I shall know of it and destroy him!"

BECAUSE nations could do nothing else, and also because most of the responsible heads believed in the Unknown's honest intentions—Dake's orders were followed to the letter. There was surprise, even bewilderment, but the thing was done.

The moment it was, Dake, watching every move with anxious diligence, started a fresh radio broadcast, this time with complicated instructions comprehensible only to the engineers, and not always to them. But at least they knew what to do even if they did not entirely know why they did it. They were like men mastering the uses of electricity without knowing what electricity is.

The broadcasts followed at regular intervals when, through television, Dake was assured the work had progressed as far as he had ordered. Simultaneously, through the weeks, there grew up in America, Great Britain, Europe, and the Orient, enormous structures of specially cast metal, with adjacent power houses fixed in uniform formation nearby, from which led power feeds to the different nerve centers of various nearby cities.

The power houses themselves made their very builders gasp in stunned admiration. They could not even guess at the uncanny genius of the being who had devised all this from abstract thinking. But it was perfectly clear to them that here in these mighty power plants, from the mere breakdown of water into its atomic energy, was unlimited power for the development of commerce, railways, air-service, and all the amenities of civilized life.

But what would the price be? It was inconceivable that a man should give the world such power without demanding a heavy reward. World dictatorship, perhaps?

When Dake heard of this he only smiled. But his smile was not enough for Dr. Carson and Sheila. They wanted to know why, particularly Sheila. But when she came to look for him in the Association laboratories one morning he had disappeared, and nobody seemed to know what had become of him. Nor did Dr. Carson seem to deem it wise to investigate too thoroughly in case it happened to be against Dake's wishes. He would probably return when he was ready.

To Sheila it was an impossible situation. There were still many things she did not understand—or her father either for that matter. But all her searching drew blank—then ten days after Dake had vanished she got a phone call from him.

Would she come to the address he gave, and promise to tell nobody until afterward? She gave her immediate assent, puzzling over the place he named: it

mentioned a little spot some five miles from Monterey in California. He would meet her, disguised, at the San Francisco airport.

He did, disguised in dark glasses and sticking plaster as on that first occasion. From the airport he drove in a closed sedan along the Pacific coastline road, passed through Monterey itself, finally stopped at a small, isolated little house on a steep shelf of land sweeping down to the open, sunlit sea.

ONLY when he had garaged the car and was in the house did he seem ready to talk.

"I had to send for you," he said, in a low voice.

"But Dake, why did you have to go like that?" the girl asked earnestly. "Do you not realize that you are a public figure? The greatest benefactor the world has ever known?"

"I know." He stared through the open French doors toward the sea. "That was one reason why I left when my work was done. If any credit is going about let your father have it, Sheila. I can never have it. I am legally dead."

"But you came back to life!" she insisted. "We can marry now, do all we planned, live in this wonderfully happy world of your creating—"

"No!" His voice was stonily firm. He looked steadily at her flushed, eager young face. "That can never be, my dear," he went on, with a vague semblance of his old tenderness. "God knows, I would that it could, but— I'm only a ghost, a ghost who must die again. Soon."

Sheila paled. "Dake, you don't mean—"

He fell silent, staring out to sea.

"I had the time while in the laboratories to examine the instruments Doc lowered down the mine shaft," he went on presently. "I know now what happened. When that atomic shell dropped to earth it released its energy. That energy mingled with slight radium deposits in pitchblende which were certainly around that spot. The combination of the two energies produced a form of mitogenesis.* Anyhow, enormously powerful waves of mitogenetic radiation were given off. They affected my dead heart like a charge of super-adrenalin. I recovered. My organs were in order: I had died only through insufficient oxygen. I had fallen slackly into mud and was unhurt. So I came back to life. To Mason those radiations brought death. His heart accelerated far beyond normal and he couldn't take it."

"So that was it." Sheila whispered.

Dake gave a bitter smile. "As I have suspected all along, there is a price. The life-return is not permanent! It is only a superficial thing that burns itself out. All along I have been desperately afraid I would not finish in time. I dare not love you again, my dear, knowing I must die!"

The girl did not speak. Her eyes were chained to him as he sat slumped in the chair by the window.

*The basic radiation which science generally accepts as the key of life.—Author.

"The fires of this spurious life are burning low. I have only a few hours left. I know it now. I came here intending to die without anybody ever knowing —but I had to see you again, explain the true facts. I chose this spot where I could gaze out over the beauty of a world I must leave, dragging out a few more hours of happiness given to me by an accident of nature."

HE GOT to his feet suddenly, put an arm around the girl's shoulders.

"Sheila, I found atomic force," he murmured. "It killed me: it gave me life back again: it gave me greater knowledge than man has ever known: it enabled me to give peace to my fellow beings: it showed me beyond death, and now. . . . It is over."

"It hasn't *got* to be!" she shouted frantically "Dake, you belong to me, to the world— It isn't right that this should be your reward."

He was silent, chin on chest.

"You must find a way!" she whispered, clasping his arm.

He still pondered, then said quietly, "Give me ten minutes, Sheila, to make a last experiment. It would be too harrowing for you to witness. I believe there *is* a last chance! Come in here."

He threw open an adjoining door and she passed into a small, sunlit study. She crossed to the armchair moodily and sank down into it, wondering what possible scheme Dake could have in mind. In desperate impatience she waited, tried the door once and found it locked. Not a sound reached her.

At the end of the ten minutes she tried the door again. To her surprise it opened instantly. Immediately her gaze went to the open French doors, the cool wind from the sea blowing back the curtains. Automatically her eyes were caught by a sheet of white notepaper held down with the paperweight. Mechanically she picked it up, read through a blur of tears.

"Dearest: There never was a way! Forgive my deception, but I had to make it as easy as possible for you. All my notes, except the formula for atomic force, which I have destroyed, together with a full account of events to date, are in my bureau in the study. Give them to Dr. Carson.

"I prefer it this way. It is better than waiting for the inevitable end. If my body is ever found it will not matter, because no man ever knew what happened to Dake Bradfield, except our own intimated friends.

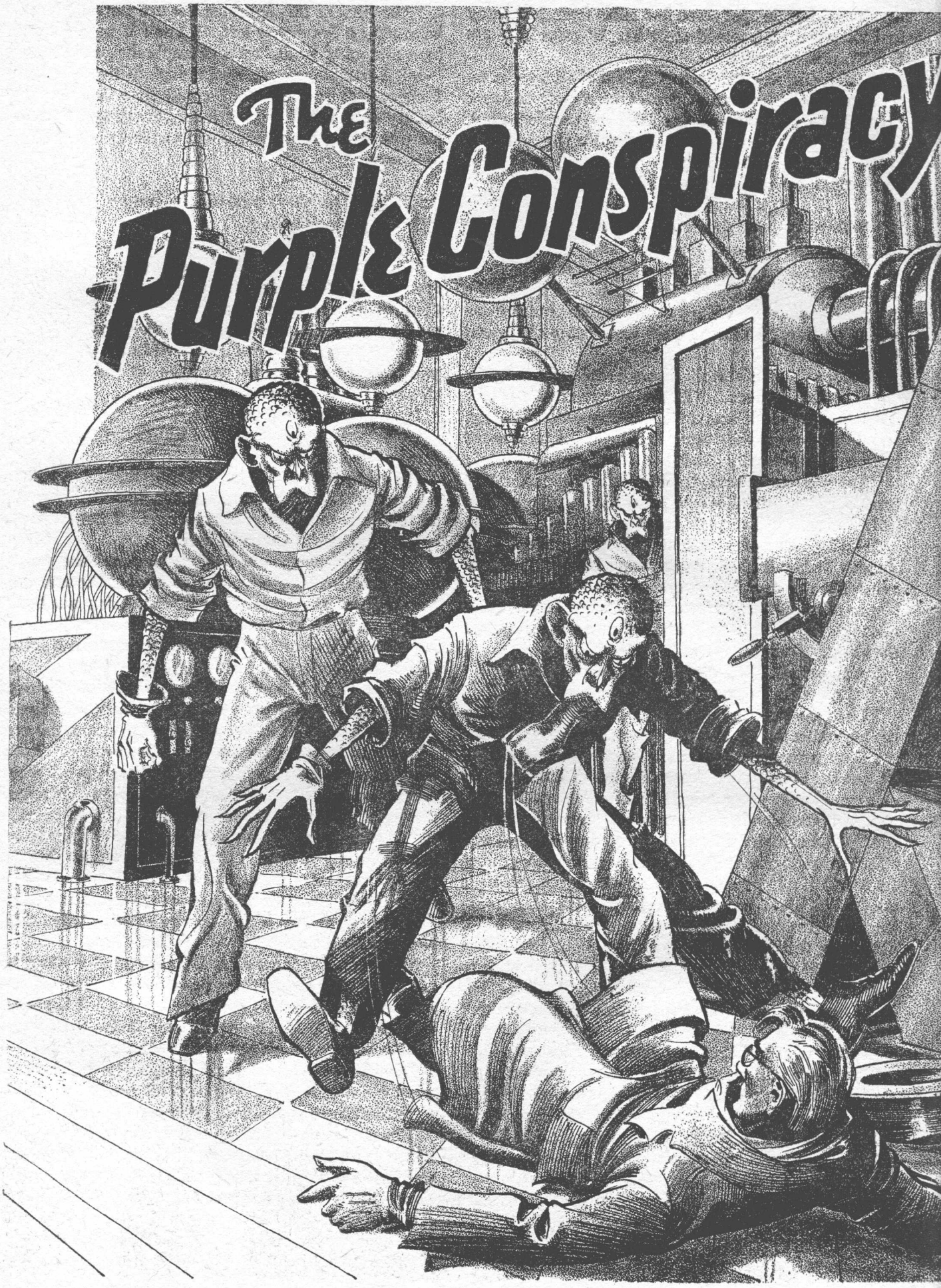
"Remember me always, my dearest. Dake."

Mechanically Sheila blundered to the window, the wind fanning her hot, tear-scalded cheeks.

"Dake!" she screamed. "Dake—!"

The empty stretch of beach only gave back the echo of her voice. Words died in her throat. Her eyes were following a man's footprints going down from the windows, across the sand to where the Pacific rollers creamed and foamed in the sunshine.

There was nothing alive in sight, only the lonely, circling gulls.


The Purple Conspiracy

There was something decidedly strange about the Ajax brothers, and Christopher Holland's blood froze when he found out

By STANTON A. COBLENTZ

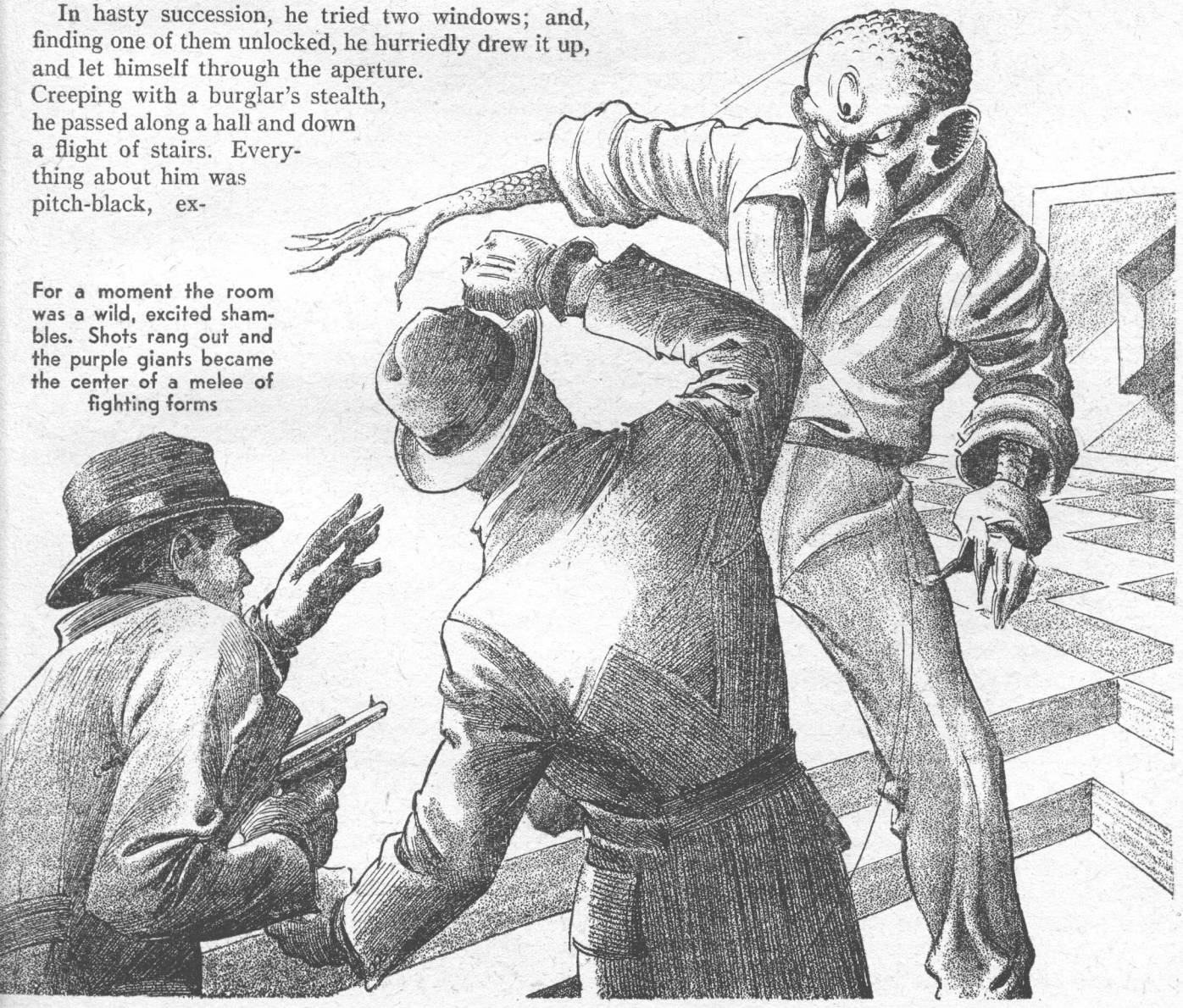
THE house stood isolated in the suburbs of the town; snow-covered fields, stretching on all sides, separated it from its nearest neighbor. It was a rickety, paintless affair, with drawn blinds and broken steps. Nothing more dismal could have been imagined than its dark hulk standing out in the bleak winter's twilight. Yet it was just at dusk on a January day in 1965 that a small thin figure might have been seen warily approaching.

As the man drew near, he did not move directly toward the house, but circled it several times, like a hound skirmishing about a rattlesnake's den. Then, turning toward a tree with long bare limbs that overarched a second-story balcony, he ascended precariously and let himself down on the balcony, whose rotting timbers creaked at his tread.

In hasty succession, he tried two windows; and, finding one of them unlocked, he hurriedly drew it up, and let himself through the aperture. Creeping with a burglar's stealth, he passed along a hall and down a flight of stairs. Everything about him was pitch-black, except where his flashlight wavered with an eerie illumination. The house had a queer musky odor, reminding him of some peculiar species of animal; but the hallways and the upstairs rooms were bare of furniture.

So slowly did the man move that it might have been fifteen minutes before he stood at the bottom of the stairs. Then, letting his flashlight play on all sides of a large shuttered chamber, he uttered a series of startled gasps, and his eyes popped halfway out of his head.

Strung out along the wall to his left were enormous screens, painted with monstrous pictures. Some of them showed deserts, flanked by long waterways, with fringes of head-shaped purple plants! And some rep-

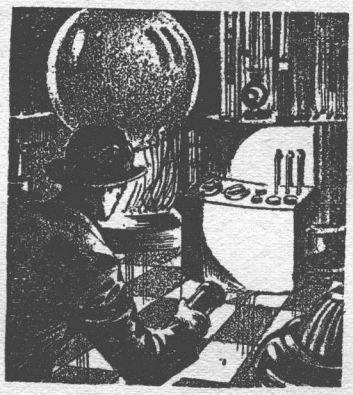


For a moment the room was a wild, excited shambles. Shots rang out and the purple giants became the center of a melee of fighting forms

resented three-eyed beings with long snake-like forms, spidery limbs and claw-like fingers!

The spectator rubbed a hand confusedly across his brow, in the manner of one who fears for his own wits. Then, turning his flashlight toward the right side of the room, he gazed at an intricacy of machines, all of some queer purplish metal. Never had he seen such machines before! Their dials were decorated with hieroglyphics, and with dozens of long symmetrical scarlet tubes, like the pipes of some great painted organ! While from the center, amid a twisted wiry mass, there came a pale phosphorescent glow.

The man had stood for several minutes staring in dread fascination . . . when he was startled to hear the tramp of footsteps on the stairs.



At this sound, his heart fluttered and skipped a beat. He barely had time to scramble up to the second floor, when the door rattled open and a sharp metallic laughter crashed on his ears. At the same moment, the place was flooded with light—an unearthly dull-red illumination that issued from one of the tubes of the great machines, and seemed to the observer to have an almost ghostly quality.

Battling down his impulse to dash out of the balcony window, the watcher crouched in the darkness at the head of the stairs, peering at four figures who had just entered. All were giants—the shortest not less than six feet and a half in height. Despite the bitter cold of the night, they wore no overcoats; their ill-fitting suits seemed of a summer-light texture; and their vests and jackets were open. Their faces, which were covered with heavy black beards, looked stiff and expressionless as boards; their whole appearance seemed just a little stagey and unreal.

Still laughing in a resonant, brassy way, one of the giants slammed the door behind him. Then, while he spoke in a harsh, explosive, unknown tongue, he drew off his black gloves and brought to view a pair of long, clawed hands!

Little wonder that the intruder at the head of the stairs felt his hair bristling! Yet what he beheld the next moment was still more astonishing. Another of the newcomers reached up and snatched at his beard; and the whole beard came off, and his entire face appeared to do likewise! The face was but a mask! The observer stared long in a daze; and while he stared, each of the three remaining giants in turn pulled off a mask. Each revealed a hatchet face with a lavender complexion! A cleft chin that ended in two nail-like points! And three eyes, of which one stood out in the middle of the forehead with a violet glow, while the other two sometimes appeared black, and sometimes burned with an intense and baleful orange-red.

Upon arriving at his office the following morning, Earle H. Morganson, Manager of Allied Munitions, Inc., was informed that a visitor had been awaiting him for over an hour.

"One of the employees, sir," explained Miss Garwood, his secretary. "Insists he's got to see you."

"What's his name?"

"Holland. Christopher Holland."

"Don't know him from Adam! What's he work at?"

"Chemical research, sir."

"Chemical research? H'm. Well, if he's discovered anything, why doesn't he take it up with his superintendent?"

"He says it's something too private, sir."

Morganson fumbled among some papers, then continued in a growl, "Oh, Lord, I suppose a manager's place is to be pestered. Better show him in and get it over with."

A minute later, a small thin figure entered with a stride so hasty it was almost a rush. His face, with its scraggly brown moustache an its abnormal whiteness, registered extreme excitement. His eyes were wild and bloodshot, his hair uncombed and dishevelled; and his clothes, from the collarless shirt to the vest with the buttons in the wrong buttonholes, looked as if they had been thrown on in a great hurry.

"What is it, sir?" Morganson demanded, motioning him to a seat.

The visitor sank into the chair. But it was a moment before a few strained words struggled to his lips.

"All last night, Mr. Morganson, I couldn't sleep. I kept thinking of something I had seen—something I couldn't explain, though it's the most terribly important—"

The manager tapped impatiently at his desk. "Come to the point, sir! I haven't all morning!"

Holland stirred uneasily in his seat, let his eyes roll in their sockets until Morganson felt sure he was interviewing a madman, and then coughed, and declared:

"You know, sir, that several months ago you engaged four men to work in a screened-off laboratory near the Testing Department. Enormous fellows, all of them—pretty near seven-footers."

"You mean, the Ajax brothers?" snapped the Manager, eyeing his visitor with a peculiar searching scrutiny. "What about them?"

Holland drew a shade closer to his superior, and spoke rapidly, but in a whisper. "I've been watching them, sir—how they keep to themselves, speak with such a peculiar accent, and walk with an unusual stamping sound. They're not Americans, that's clear—and they don't look like any kind of Europeans I've heard of, nor Asiatics nor Africans either. Where the deuce do they come from? It has me completely baffled."

Morganson shot to his feet, to indicate that the in-

terview was over. "That is a secret, sir. You realize that during wartime—"

Holland's blue eyes blazed. They sparkled with a light at once piercing, electrical, magnetic. "I realize as well as you do, sir, that Pan-America and Mid-Europa are engaged in a life-or-death struggle. I'm as eager as you are to break the deadlock, which has taken fifty million lives already and is tearing us all to shreds. That's why I've set out privately to investigate the most diabolical conspiracy—"

"Diabolical conspiracy?" smiled the manager, trying to look unconcerned. "Before you make any charges, sir, you'd better be ready to substantiate them!"

"I am ready, Mr. Morganson. The Ajax brothers have been stirring up my suspicions for a long time. Night before last I stole behind them and followed them home, to a lonely house in the suburbs. Last night I quit work early and entered the house before they got back. You won't believe me when I tell you what I saw. God! I can hardly believe it myself!"

A FEW minutes later, when Holland had finished his story of three-eyed beings with cleft chins and lavender complexions, Morganson smiled again, sniffed contemptuously, and dismissed his visitor almost by main force. Then, turning to his secretary, he muttered, "Too bad! Maybe he had a good mind before it cracked up! Suppose you look up his record, Miss Garwood?"

The girl turned to a card index, and, after a minute, reported, "Here it is! Christopher Holland. Came to us only five months ago from the Banner Mills, which recommended him very favorably. There's nothing marked against him, sir."

"H'm. Well, this war's enough to turn any of us crazy," was the Manager's only comment.

But half an hour later, when Assistant Manager Bolling walked into the office, Morganson had still been unable to get Holland out of his mind.

"Listen here, Bolling," he asked, between nervous puffs at a cigar, "have you been keeping an eye on those four Ajax boys? It always seemed just a little strange to me how they lit in here, heaven knows where from, and promised us a load of remarkable new inventions to help win the war."

"Well, haven't they made good?" enthusiastically inquired the Assistant Manager. "Those boys are geniuses, believe me—every mother's son of them! Why, look at the Rocket Redbeam—didn't it do just what they said it would?—curve down like a rocket fifty or a hundred miles away, and kill every living thing it touched?"

"Yes, and the very day we tried it out, reports came that Mid-Europa was already using it!"

"A damned unlucky coincidence!"

"And was it also a coincidence, Bolling, that not twelve hours after we began killing with the Aero-Electric Vibrator, we found that Mid-Europa had the same invention?"

"You mean to say, you suspect Mid-Europan spies—"

"Never mind what I suspect, Bolling! You'd think I was cracked if I said anything more just now. Only take note! The Ajaxes, as you know, have invented this Fuelless Fire, which burns nearly anything except solid rock, and can't be stopped by water. Next Tuesday our armies try it out against the mid-Europans. If the mid-Europans have anything similar, I'll know what to believe!"

"And I'll be too surprised to know what to believe!" declared Bolling, as he slipped away behind the glass partition.

ON the following Monday morning, Morganson was looking pale and worried as he reached his office. Brushing aside some letters marked "Urgent!", he turned to Miss Garwood with a hurried, "Send for Mr. Holland, please!"

It was a weary-looking visitor that entered the office a few minutes later. His face was even more worn and haggard than before, his eyes still more bloodshot; and his thin hands trembled with nervous spasms.

"Well, sir, have you found out anything more about the Ajaxes?" Morganson greeted him, abruptly.

"Yes, sir. Every night I've been following them—or else hiding in their house to watch. What I suggested to you the other day is still the only explanation I can think of."

Morganson did a turn or two about the floor; offered his visitor a cigarette; and when they both were smoking, broke out, apparently irrelevantly, "A special dispatch has just come from mid-Europa. The enemy has attacked us with Fuelless Fire!"

Holland stared at his chief, but said nothing.

"We ourselves were to introduce it tomorrow," the latter went on. "This is the third time the same thing has happened with the Ajaxes' inventions. That's why I've sent for you."

"I'm at your service, Mr. Morganson."

The manager thrust himself down decisively into his swivel chair, wheeled toward his employee, and demanded, "Are you game to take some risks?"

"Isn't that what I've been doing all week, sir?"

"Good! Then here's my plan!"

Not for almost an hour did Holland emerge from the Manager's office. But when he finally did leave, his thin lips were drawn together in a grim, expectant expression.

THAT evening at twilight Holland sat in company with six plainly dressed, silent men in a large closed car. Reaching a district of scattered dwellings and open fields, they parked their machine on a deserted street, and set out on foot to a certain isolated house. Then, having unfolded a small collapsible ladder, they mounted one by one to the balcony, and stealthily slid through the window.

"Now all you boys be as quiet as a shadow," mut-

tered Hennessey, their chief. "No telling what reception those demons would cook up if they knew we was coming."

Inside the house, they slunk along like thieves at a slow, crouching pace. By means of a flashlight, Holland led them down to the first floor, where they hid themselves behind the great, oddly decorated screens.

"Nobody budge an inch," Hennessey cautioned, "till I give the signal. I don't think we'll have long to wait."

"No, they're due any minute," whispered Holland.

"S'h!" came the sibilant warning of some one who stood a little nearer the door than any of the others.

Instantly the flashlight snapped off, and the seven men became as silent as the very screens behind which they crouched with alert senses and rapidly beating hearts.

From outside, the sound of heavy stamping footsteps was heard. For a moment they halted at the threshold; then the door burst open, and the laughter of several gusty metallic voices rang out.

Simultaneously, the place was flooded with light, the same eerie dull-red light that Holland had observed before.

Peering through a paper-thin slit in one of the screens, Holland could see that the new arrivals were giant-sized and four in number. A shudder went through him as he noted how, flinging off their masks, they unbared their lavender features, cleft chins, and three-eyed faces. The violet central eye and two orange-red orbs of each giant sparkled fitfully; while their harsh peculiar speech poured forth in a continuous stream.

The intruder shuddered again as he watched how one of the giants, still seemingly unsuspicious, turned to the machine of the scarlet pipes and touched a little lever.

Instantly a thousand green sparks flew forth. A grating, explosive sound issued from the machine, muffled as though coming from an enormous distance, but otherwise exactly like the voices of the Ajaxes themselves. The operator, fitting a little red tube to his mouth, spoke into it for several minutes in low, eager-sounding tones; then, the moment he had finished, a series of answering sounds came from the machine, and all four giants stood intently listening.

To Holland, as he crouched behind his screen with gaping eyes, one fact was clear enough. The pipe-like machines were radio transmitters and receivers, through which the Ajaxes communicated with others of their kind. But who could those others be? And where? And what sort of a weird plot was this?

Even as these questions flashed through Holland's mind, the voices over the radio suddenly ceased; and one of the Ajaxes, making an odd sniffing sound with his proboscis-like nose, began staring about the room inquiringly. The three others immediately did likewise; while Holland, creeping as far out of sight as he could, heard their voices raised in short, quick exclamations.

His heart beat with hammer strokes as he waited for an interminable half minute, and listened to them stamping about the room. There came a shuffling noise as of a heavy object being scraped across the floor; then swiftly the footsteps moved in his direction. The screen in front of him gave a jerk, swayed slightly, and all at once was pulled aside.

LEAPING to his feet, Holland found the four giants glaring down at him. Their orange-red eyes blinked and flashed; their violet eyes rolled in their heads like searchlights, then focused upon him with piercing beams.

Fumbling for his revolver, the cornered man could not hold back a horrified gasp.

Instantly the light in the strangers' eyes was changed to a series of rapid sparkles; while their forms rocked with metallic laughter.

"Grab them, men! Grab them!" With sudden vehemence Hennessey's command shrilled forth, while the six concealed men, brandishing their revolvers, leaped out from their hiding places.

For a moment the room was a wild, excited shambles. Holland was never able to say exactly what it was what happened. There was a rout of whirling, convulsed figures; there were shouts and cries; one of the giants, wounded, began to exude a purple blood, which left thick streaks upon the floor; another bellowed in a booming voice, like a lion roaring; still another seized two of the detectives, one in each hand, and would have strangled them had a pistol shot from across the room not loosened his grip.

Holland meanwhile found himself backed against a wall, face to face with two orange-red eyes that blazed with an intensity as of a high-powered lamp. His opponent drew nearer; two monstrous arms reached out; in an instant, Holland knew, he would be seized and throttled. At that crisis, he snatched his revolver, lifted it, and pressed the trigger. But the lock was jammed.

The same instant, a pair of clawing hands swept down.

Instinctively, in his terror, the trapped man struck out with the butt of his revolver. With a smashing sound, it came down on his adversary's cleft chin—and the giant, giving a cat-like yell, unexpectedly sagged back, staggered, and all at once collapsed. Holland, without realizing it, had hit him on a vital nerve.

At the same time one of the other giants, observing his brother's plight, flung open the door and dashed out. Instantly the remaining two, howling and trailing long streaks of purple blood, followed into the night, while after them rang a volley of shots.

Two of the detectives lay groaning on the floor, their clothes torn and disheveled, their faces red and bleeding. But the remaining four, less badly bruised, turned with faint smiles of triumph to the victim whom Holland had felled.

"WELL, guess we got this devil, all right," muttered Hennessey, while he and his companions knotted a heavy rope about the recumbent giant.

"Just in the nick of time!" Holland pointed out, as he stood by, ghastly in the reddish light. "Look, he's coming to!"

The captive's rage was a thing terrible to see as he regained consciousness. With snake-like convulsions, he threshed about, his eyes flashing orange-red fires, his arms straining to break the ropes. Meantime, from his lips, came a series of hissing sounds; while his cleft chin worked up and down with a frenzy as of a muzzled dog eager to bite.

"No use making such a fuss there, old man," Hennessey addressed him. "We got you where we want, and ain't gonna let you get away."

Ajax looked up from where he lay writhing on the floor. A growl issued from his throat. Then all at once he ceased to struggle, but, glowering at his jailors with a fixed stare, spoke in his curious accent:

"It is so. You have me caught; there is no use to fight. I am not angry against you—only against my brothers. We were all pledged to fight to the death. But the traitors ran away and left me."

The seven men stood above the giant, staring at him intently. "Who in hell's name are you?" Hennessey went on to demand. "You and your masquerading gang! You don't look human, so help me God! No, you don't look human!"

"I'm not human, thank heaven!"

"Tell us who you are! I'll swear it, we'll try to get you off easy!" promised Hennessey. "What sort of devil's spy ring is this?"

The giant remained silent.

"If you don't tell," threatened the detective, tapping significantly at his throat, "you'll live to be sorry!"

The captive grunted. "I never expected to save my neck at my brothers' expense. But they're not my brothers really. Only fellow countrymen. Now that they have deserted me, I have no obligation to them. But I don't like to betray my whole people."

"Betray what whole people?"

"But what have my people done for me?" grumbled Ajax. "From the age of three, I was a slave under King Zut. I could not speak or think as I wished, under penalty of death. They only laughed at my protests when they sent me down here, knowing I was against the whole black scheme. So what loyalty do I owe my native planet?"

"Your native planet?"

"Yes, don't you know I came all the way from Ptokamin?"

Bewildered exclamations were his only answer.

"That is to say, the planet you call Mars."

Holland alone showed little sign of surprise.

"I don't believe it!" muttered Hennessey. "It just don't make sense!"

"You don't know any one born here with three eyes, do you?" demanded Ajax. "Or any one with a cleft chin? A chin containing such delicate nerves, the center of our sense of location, that hitting a man there will knock him out?"

"That don't explain what you four devils are doing here!" Hennessey pointed out, gruffly.

Ajax was silent a moment. Then, as if coming to a decision, he announced, "If you'll make these ropes a little easier—and promise to spare my life—I'll tell you the whole story."

STILL bound, but with the ropes greatly eased, the captive sat on the floor against one of the screens, his long spidery legs crossed in front of him. About him, in a semi-circle, his captors likewise were sprawled in the dull light, most of them with hands pressed against the butts of their revolvers.

"What I have to say goes a long ways back," the stranger recounted, picking his words with the crisp slowness of one speaking a foreign tongue. "Ptokamin—that is to say, Mars—is a dying world. For ages it has been losing its moisture and vegetation; and our race has gradually diminished from hundreds of millions to a bare fifty thousand. Even these few cannot survive many centuries longer. So we have been looking for a home on some other planet. Naturally, we thought first of Zpappos—or, as you call it, the Earth. For over eighty years our explorers have been coming here."

"Eighty years—hell! How could you come without us knowing it?" demanded Hennessey.

"The explorers always landed at night, and picked some uninhabited desert or mountain range. Then they disguised themselves as Earth-men, first having studied your human appearance through distance detectors, which show all the details of objects miles away. They learned the leading Earth-languages and the ways of Earthians, partly through books which they stole. Then they returned to Mars in their radium-rocket ships, with a plan for conquering this planet."

"Conquering this planet?"

The captive's violet eye rolled in the center of his forehead, then cast its piercing beam full upon Holland.

"There were those who said that fifty thousand of us could not overcome two billion Earth-men. But the returning explorers explained, 'We do not have to kill the Earth-men. Let them kill themselves. Then we will fly there and take the planet.' To this King Zut and his councillors answered, 'How will we make the Earth-men kill each other? True, they may be very stupid, but not even a worm would be that foolish.' But the explorers said, 'It is hard to believe, O Lord Zut, but the Earth-men are just that foolish. They are never so happy as when exterminating each other. They are marked off into groups called nations, which play a game called war, and the point of this game is to see how many of each other they can destroy."

"King Zut laughed on hearing this, and said, 'If this

be true, how does it happen that there are two billion of them left?' And the explorers replied, 'Their methods of killing are very primitive, O Lord Zut. They have not much inventive power. Now, we ourselves take no interest in killing; yet our inventors, with their scientific knowledge, could devise much more effective slaughter-engines than any on Earth."

" 'Even so,' King Zut demanded, 'how could we wipe out the Earth-folk? Only ten or fifteen of us can go down to Earth at a time. No matter what our weapons, we would be overcome by sheer numbers.'

"But this was not the plan of the explorers. They had a cleverer idea. They would dress up as Earth-men, and make slaughter-engines, and give them to the human race. They would supply both sides in a great war with the same deadly weapons. And thus the Earth-men would exterminate each other."

AJAX finished with a burst of loud metallic laughter, as if to mock his hearers and all their race.

"You mean to say that's why you're here now?" Holland demanded.

The giant's two orange-red eyes showed a derisive glitter as he replied, "Of course! Some of us are planted in all the important munition works on both sides. We communicate by means of those machines" —he pointed to the apparatus with the scarlet organ-like pipes—"and always arrange to give our weapons to both sides at the same time, so that neither will be wiped out much ahead of the other. So far we have succeeded. Until now, no one has suspected."

The giant tugged at his fetters, and continued, "Personally, I am tired of the whole idea. I grow homesick when I look at these screens, with their pictures of Mars, which we brought with us as reminders."

"Besides," he added, after a minute, "it is too warm here; we Martians would not thrive so near the sun. Always I am hot, except when the snow-winds blow. We would do better to turn to Kranngee, which you call Jupiter. This is why I have consented to reveal our plans."

The speaker came to an emphatic halt. . . . "Now take me with you," he resumed. "Do with me as you wish. A great weight is off my mind, for the human race has done me no harm and I have prevented the greatest crime in history."

SIX months had gone by. A short, slim figure strode into the central office of the Trans-American Secret Service. Birkhead, the chief, leapt up and flung out an enthusiatic hand. "Welcome back!" he exclaimed, heartily. "We'll have you promoted, young man, the way you handled that Ajax affair!"

"Damned lucky we rounded up that gang, Mr. Birkhead," reported the newcomer. "As you know, ninety-four of those Martians have been caught in munition plants throughout the world. High time, too!"

"Well, thank God, that danger's over. The peace treaty we just signed with mid-Europa is due to nothing but your findings, Whitney. If we hadn't thought of keeping you on the outlook for spies in Allied Munitions under the name of—of—"

"Christopher Holland."

"Christopher Holland. And if you hadn't known enough chemistry to pose as a researcher—"

"Yes, and if we hadn't hushed the matter up till we caught all the conspirators— By the way," Holland-Whitney changed the subject, "have the prisoners all been disposed of yet? You know, sir, the risk isn't over so long as there's a chance of one of them escaping back to Mars—"

Birkhead tapped meaningly at a pile of papers on his desk. "I have here some cablegrams," he said. "The ninety-third Martian was secretly executed just this week. That means that the only one still alive is your Mr. Ajax—the fellow you yourself captured, Whitney. Naturally, we'll spare his life, as we promised, and put him on exhibition—"

Whitney's face fell. "I'm afraid I have bad news for you, sir. I had a telephone call last night from his keepers. Yesterday's heat was too much for him. You see, it was all of eighty-seven degrees—The poor fellow died of sunstroke."

Both men sighed, to think that the one and only Martian in captivity was no more.

But, a few minutes later, their faces were wreathed in smiles again. With a muttered, "Here's something for you from the staff, young man," Birkhead had opened a safe and drawn out a golden plaque on which was inscribed: "To Christopher Whitney, World Patriot, Peace Maker in the Earth's most deadly war and Rescuer of Mankind from the Martian Peril."

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NOVEMBER ISSUE

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Biggs was in a frightful mess, trying to throw grapples around the jars

F-O-B-VENUS

By NELSON S. BOND

Lancelot Biggs was perhaps the worst second mate Captain Hanson had ever shipped, and he was convinced of it when he ruined their cargo. But how dumb a man is, may sometimes be a matter of opinion

SOMETHING had gone a little haywire with my bug, and I had just repaired it and was CQ-ing on the 20 band when the door opened and Captain Hanson walked in.

Naturally, I was surprised. We were only four hours out of the Venus H-layer, and I hadn't expected any visitors; least of all the skipper. But he plunked himself down in the best chair and said, "Sparks, look at me! What do you see?"

That gave me a jolt. Even the best of them make the old dipsy-doo once in a while, but I never thought I'd live to see the day when Captain Hanson went space nutty. He'd been with the Corporation, man and boy, for more than thirty years now, and had never spent a day in dry-dock. I reached behind me cautiously and said in os soothing a voice as I could muster, "Why, I see a very nice man, Captain. Now, just you sit quiet for a minute . I've got to—"

"Stop bein' a damned fool, Sparks!" said the skipper wearily, "An' put down that monkey-wrench! I'm not slippin' my gravs—yet. I'm just askin' you a simple question. What do you see?"

I said, "Is it facts you're after, Cap, or am I allowed poetic license? If it's facts, I see a swell, slightly gray-haired guy in his middle fifties who's been through the mill, knows space like a book, and—"

"Wrong!" said Hanson. "Sparks, all radiomen are dumb. I guess that's why they're radiomen. What you see before you is a broken man. A man sadly buffeted by Fate and the dread clutch of circumstances. Not to mention meddlesome vice-presidents."

This time I got it.

"Biggs?" I said.

"Yes, Sparks. Biggs. Now tell me, man to man, what did I ever do to deserve Biggs?"

He had me there. Being the skipper of the *Saturn* is not what I'd call an easy job under the best of conditions. The *Saturn* is the oldest space-lugger still doing active duty on Corporation runs. She was built 'way back there before the turn of the century. For the past ten or twelve years, she had been on freight service, having been judged unfit for passenger duty by the SSCB—Space Safety Control Board.

To make matters worse, while we were taking on cargo at Sun City spaceport, the skipper had been called into the company offices. When he came out again, he had this Biggs in tow.

Biggs was tall. Biggs was lanky and gangly and all the other adjectives you can think of that mean a guy's Adam's-apple sticks out. He was overflowing at the mouth with a great big grin, and he was as dumb as they make 'em. He had his Third Mate's papers, and was entitled to be known as "Mister" Biggs—the "Mister" being a nice camouflage for his real name, Lancelot.

But—Biggs was the nephew of crusty old Prendergast Biggs, first vice-president of the Corporation. So there was nothing the skipper could do but gulp and say, "Very good!" when they assigned Biggs to the *Saturn*.

There was nothing to prevent him from hoping Biggs would stumble over his suitcases and bust his scrawny neck—but Biggs didn't do it. He was awkward enough to stumble, but lucky enough to fall on a cushion if he did!

I said gently, "What's he up to now, Captain?"

"What isn't he up to?" groaned the skipper. "First, he said he could handle the gravs when we broke out of Venus' clutch. So—"

"Oh!" I said, "*He* did that, did he?"

"Stop rubbin' your head an' feelin' sorry for yourself," said Hanson. "You got off lucky. Chief Garrity is nursin' two black eyes. One of the wipers has a busted arm. Everybody on the ship went floatin' off to the ceiling, same as you did."

"Anything else?" I asked.

"*Everything* else!" snorted Hanson. "While we were all scramblin' around in midair, Biggs made a grab for the hand-controls. He got the manual deflector by mistake. Todd has just finished shapin' the course revision. We're point-oh-seven degrees off course now; almost three hundred thousand miles! We've got to up revs and waste fuel to get back, or we'll report in to Earth a day late. And you know what *that* means!"

Sure, I knew what that meant. Cap on the carpet before the Board; the rest of us sitting around chewing our fingernails, wondering whether they'd yank the *Saturn* off the Venus run.

"Well, what are you going to do about him?" I asked.

"What can I do?"

"There's always the airlock," I suggested. "Nobody would ever blame you."

"This ain't no time to be funny, Sparks!" complained the skipper. "This is a serious problem. We've got a valuable cargo of *mekel*-root and *clab*-beans to take into New York. But if that guy messes up our flight any more—"

He shook his head dolefully. I scratched mine. Then I got a brilliant idea.

"Cargo!" I said. "There's your answer, Captain!"

"I'm listenin'," said Hanson.

"Put Biggs in charge of the cargo. That way he'll be down in the hold throughout the trip. He won't be up in the control turret to bother you. And there's nothing he can do down there that'll hurt anybody."

"But that's the supercargo's job," frowned the skipper. "Biggs knows that."

"Sure. But Harkness will play along with you. Tell him to let on he's sick. Give him a vacation for this trip. He deserves it, anyway. Then it's logical enough to put Biggs on special duty below."

The skipper grinned.

"Sparks, I take it back what I said about radiomen. I think you got somethin' there!"

"Then you'll do it?"

"Immediately," said Hanson, rising, "if not sooner!"

SO that was that. That night my relief came on duty, and I went down to the mess hall to eat whatever I could stomach of Slops' slumgullion. First person I met up with was Mr. Lancelot Biggs himself.

"Hello, Sparks," he said.

"Hello, yourself," I answered. "What are you doing at this mess? Thought you ate at the skipper's hour?"

"I did until now," he grinned. "Harkness was taken ill this afternoon, and the Skipper put me on emergency duty in his place."

"Is that so?" I said, looking as surprised as possible. "Well, that's quite a job. Lot of responsibility, you know. That cargo's valuable."

I had to grin at the way his lean face sobered.

"I realize that, Sparks. I'm devoting a lot of thought to the job, too. You know, I'm a bit of an experimenter, and it seems to me—"

One of the mess boys brought on my chow then, and I didn't listen to the rest of his chatter. Which was a sad mistake. If I had listened, I would have been able to warn Captain Hanson that trouble was on the way.

I think it was about the third day out that I began to smell those smells. Yes, I know it was the third day, because I'd just contacted Joe Marlowe on Lunar Three, giving him declination and cruising speed of the *Saturn*. I thought it was funny, but guessed it would go away. It didn't. It got worse. Finally, on the fifth day, I decided to do something.

There's nothing like meeting trouble halfway. I was just on my way from the radio room to the control turret when I bumped smack into Captain Hanson. It was a head on collision, but the Skipper's "Oof!" took longer than mine, so I got to talk first.

"Listen here!" I yelled, "I've had about as much of this rickety old tub as I'm going to stand. If you can't put a stop to those stinks Slops makes in the galley—"

Hanson gave me a look that would wilt lettuce.

"I don't want no trouble with you, Sparks!" was his comeback. "I been smellin' those smells, too. That's what I was aimin' to ask *you* about. Have you been foolin' around with some of them chemical experiments of your'n?"

"I have not," I informed him loftily. "And besides, while chemicals may stink sometimes, they don't ever give out a smell like the butt of an overripe cabbage." Except perhaps some of the sulphur compounds." Then I stared at him. "I'm not kidding. I think those smells are coming up out of the galley."

The skipper groaned softly.

"Trouble. Nothin' but trouble. It ain't enough I'm supposed to shuttle this barge between Earth an' Mars. Now I got smells to worry about, too. Well, come on! Let's look!"

We went down to the galley. Slops was stirring something in a bowl. I took one look and shuddered. Tapioca—again. And don't tell me you're not supposed to stir tapioca. I know it. Tell Slops.

Then the skipper loosed his blast.

"Okay, Slops," he snarled. "We give up. Where'd you hide it?"

Slops looked puzzled.

"Hide what? I didn't hide nothin'. What is this, a game?"

"Sure," I chinned in. "It's called Sniff-the-Atmosphere. You play it by pressing your thumb and forefinger to your nostrils. Then you try to guess what died."

"Quiet, Sparks!" roared the skipper. Then, to the cook, "Well, Slops?"

Slops shrugged.

"I ain't done nothin'," he protested. "I ain't hid nothin', and I ain't smelled nothin'. Now I got a meal on the fire. Go' way and leave me alone."

The skipper looked at me, and I stared back at him.

Both of us realized the same thing at the same time. Slops wasn't lying. The smell *wasn't* as bad here as it had been updeck.

Hanson scratched his head. He said, suspiciously, "Sparks, are you sure you ain't been mixin' chemicals?"

"I'll swear it," I told him, "on a pile of logbooks. That smell came from—Hey! What else beside the galley lies beneath my room and the control turret?"

"I'm a cook," said Slops, still stirring the tapioca, "not a blueprint. Don't ask me."

"Shut up!" snapped Captain Hanson. "He ain't askin' you. Let's see, Sparks. There's the storage closet . . . the reservoir . . . the refrigeration tanks, and the—" His eyes widened suddenly; fearfully. "Sparks!" he husked.

"Yes?"

"The vegetable hold!"

MAN, that was it! The minute he said it, I knew. The vegetable hold—and Biggs in charge!

We hightailed it for the nearest ramp. The minute we turned down the corridor the smell got worse. Hanson blasted down the aisle like a rogue asteroid, with me trailing along behind. We hit the door; rammed it open—

Biggs was in there. The darned fool was standing in there dressed in a bulger, calmly spraying the bins of *mekel*-root and *clab* with a hose!

He turned as we entered and his eyes lighted behind the quartzite. His audiophone clacked pleasantly.

"Hello!" he said. "Is there anything wrong?"

"Anything wrong!" bellowed Captain Hanson. "He asks if there's anything wrong! That—that suit! And that hose—" The skipper's face was turning purple. "And this *heat!*"

"I turned off the refrigerating unit," clacked Biggs pleasantly. "You see, I had a theory that since the climate of Venus is warm and moist, it would be better for the cargo if I attempted to simulate its normal conditions of growth. So I—"

"And the suit?" roared Hanson. "Why the bulger?"

Biggs moved his hands deprecatingly.

"Why, possible infection, you know. I didn't want to expose the vegetables to any organisms—"

"Infect . . . moisture . . . heat . . ." Captain Hanson gave up. He buried his face in his hands. "Tell him, Sparks! Tell him what he's doing!"

"I said, "Listen, Biggs—your theory is no good. *Clab* and *mekel* have to be kept in a cool, dry atmosphere or they rot. As a matter of fact, they *are* rotten! That's why the captain and I came down here —to investigate the smell. If you weren't wearing a bulger you'd notice it yourself."

"Smell?" said Biggs. "Why, now, come to think of it, I have noticed a curious odor about the ship from time to time. But I thought it was rats!"

Rats! On a space ship! Imagine!

That was the last straw for Hanson. He'd been trying, and trying hard. But now he exploded.

"Biggs!" he roared, "You've ruined this cargo! Now you're relieved from your command! But before you report to your quarters, I want every bit of this mess cleaned up. And I mean every last bit, understand? Junk it! Clear it out!"

Biggs faltered, "B-but, Captain, I only tried to—"

"You heard me!"

The skipper wheeled, fiery with wrath, and strode to the doorway. I hurried after him. I whispered in his ear, "Take it easy, Captain. He's the vice-president's nephew. Maybe you ought to go slow!"

"Slow?" groaned the skipper. "A fifty thousand dollar cargo ruined—and you tell me to go slow? I'll see that idiotic son-of-a-space-wrangler fryin' in chaos. I'll blast him out of space if I'm blacklisted for it!"

I said nothing more. What was there to say? Fifty thousand bucks worth of cargo rotting in the hold. The Board would love that!

THAT was all until the next morning. The next morning I was on the bridge when Captain Hanson had a visitor. Garrity, the Chief Engineer. Garrity *never* came to the bridge. So I knew, the minute I saw him, that something was vitally wrong.

It was. Garrity's first words made that clear. He glared at the skipper accusingly from eyes that were still faintly purpled.

"Captain Hanson," he exploded. "Would you be so kind as to tell me where I can find my Forenzi jars?"

Hanson said, "Forenzi jars? What are you talking about, Chief?"

"You'll be knowing what a Forenzi jar is, no doubt?" said Garrity caustically. " 'Tis a lead container for battery solution. Yesterday there were thirty of them in the storeroom. Today there are only a half dozen left!"

Hanson said pettishly, "Now, Chief, be kind enough to conduct your own search for the jars. I don't know anything about them. If you can't watch your own equipment, don't complain to *me* about it!"

"I'm complaining to you, sir," said the Chief, "for the verra simple reason that 'twas one of your men who removed them from the locker. Your third mate, Mister Biggs!"

"Biggs!" said Hanson. "Biggs!" His face reddened. He walked to the intercommunciation unit, jabbed the button that connected with Biggs' quarters. "Mr. Biggs?" he yelped, "Chief Garrity is up here in the turret asking about twenty-four lead containers that disappeared strangely from his equipment locker. Do you know anything about—"

The diaphragm clacked an answer. Hanson started. His eyes bulged. He yelled, "What?"

Again some metallic buzzing. This time Hanson didn't try to answer. He tottered away from the 'phone.

"G-Garrity," he faltered, "will you be needin' the Forenzis before we make port?"

"Well, 'tis not exactly *vital*—" admitted Garrity.

"But—why?"

Hanson made a weak gesture.

"Because they're—out there!"

"What?" I said. "Outside the ship? How come? Why?"

Hanson's eyes were haunted.

"Biggs," he said in a hollow voice, "thought they were garbage cans! He used them to dispose of the rotten cargo!"

WELL, there wasn't any danger of the Forenzis getting lost, anyway. But do you know I even had to point *that* out to Mr. Biggs? Yes. That night I got a personal message for him, and I took it down to his cabin. Being confined to quarters, he was lonely. He looked so abject that I felt sorry for him, and lingered to talk for a while.

"I guess you think I'm a frightful dummy, Sparks," he said ruefully. "And I know Captain Hanson thinks so. But—this is my first flight, you know. And nobody ever told me what to use for garbage pails—"

"Look, Biggs," I told him, "there's no *need* for garbage pails in space. You can't just dump things out the airlock and expect to get rid of them."

"But Captain Hanson said to junk the spoiled vegetables."

"Junk. Not dump! They should have been thrown into the incinerator. You see, anything tossed out of the *Saturn* in free space just follows along with the ship." I grinned. "I'd hate to be one of the spaceport attendants on Earth when the *Saturn* comes in surrounded by twenty-four lead satellites full of garbage."

He picked me up on that one quick as a flash.

"But—but they won't be with us when we land, Sparks. As soon as we hit Earth's atmosphere, the friction will destroy the Forenzis and their contents."

I whistled softly.

"By golly, you're right. I clean forgot about that, and Hanson was so sore, he forgot it, too. That means we have to get those containers back into the ship before we hit the tropo, or we're going to lose a couple hundred bucks worth of equipment."

Biggs said meekly, "I—I'll be glad to go out and reclaim them, Sparks. Can you fix it up with the skipper?"

"I'll try," I told him.

So the next day I told Hanson about it. The Captain yanked his lower lip thoughtfully and agreed.

"Let him do it. That's better than giving him a free ride to Earth. And maybe he'll slip into the rocket blasts?"

I passed the order on to Biggs; then went back to the radio room. Joe Marlowe was calling me from Lunar Three. And what he had to say drove all other thoughts from my mind. His message came right from Corporation headquarters.

"Please report," it said, "exact amount and probable value of cargo. Must have immediate reply."

I shot through an O.K. and passed the message up to the skipper. Then, my curiosity aroused, I contacted Joe on our private conversation band and asked him how come and why. He answered cautiously.

"Stock market taking nosedive in New York, Bert," he told me. "Corp. bonds fading. Need this cargo badly."

Boy, there was bad news! It was a private message, but I figured the Old Man ought to know it. So when he came in I passed it along. He stared at me.

"Hell's bells, Sparks! Then in that case, I can't send *this!*"

"This" was the message he had intended to relay: It said, succinctly, "Cargo ruined. Value zero."

"If you do," I told him, "we'll all be studying the want ads as soon as we hit port. Stock markets are screwy. This can't be a bad panic, or a fifty thousand buck cargo wouldn't be that important. But if the Corporation's under suspicion, and they learn the *Saturn's* cargo is worthless—"

"What will we do then?"

"Stall," I suggested. "Maybe by the time we get in, the situation will be cleared up."

So we framed a message that wouldn't upset the apple cart too soon. It said, "Value of cargo estimated at Sun City spaceport as $50,000." And *that* was true enough . . .

BIGGS, with his unerring faculty for selecting the wrong moment, chose this time to come bouncing into my radio room. He had taken off his *quartzite* headpiece, but he was still wearing his bulger, and its deflated folds hung around him like the poorly draped carcass of a Venusian mammoth.

He said, "Hey, Sparks, have you got a book on energy and radiation?"

"Help yourself," I said, pointing to my bookcase. "Why, what's the sudden excitement?"

"I've been thinking," he began, "that maybe—"

Captain Hanson let out a blat like an angry lion.

"Mister Biggs! I thought you were reclaiming those Forenzi jars?"

"Yes, sir. I was. I mean—I am. But—"

"Never mind the 'buts'! Get back to work!"

"Y-yes, sir!" Biggs saluted meekly; tossed me a grateful glance. "Thanks, Sparks. I've got an idea, and if I'm right—"

"Get out, Biggs!" roared the skipper.

"Yes, sir." Biggs backed out hastily. He was thumbing the pages as he disappeared. Hanson yanked his lower lip angrily.

"The Corporation goes busted. The *Saturn* goes under the hammer. We're all out of jobs. And that —that insane young whippersnapper wants to play school!"

"He seemed mighty excited about something," I said.

"He'll be worse than that," promised the skipper, "if he doesn't get those jars back on board."

All this, to get Biblical about it, took place on the seventh day. The *Saturn* is a ten-day freighter. So

we had three more days of headaches before us till we slipped into New York spaceport.

They were three days of headaches, too. The skipper and I spent most of our time hanging over the radio, watching the progress of the stock market slump in New York. We hoped the situation would ease up so that our coming in with a zero cargo wouldn't make any difference—but no such luck. Somehow the rumor had gotten around that the *Saturn's* cargo would not be of sufficient value to keep the Corporation in the blue. And the Wall Street wolves were closing in, getting ready to snap if the rumor were true.

In the meantime, our stupid friend, Biggs, was taking a hell of a long time to reclaim those Forenzis. It's really not a hard job, you know. All he had to do was slip out through the airlock, throw a grapple around each jar, and bring it in.

But he seemed to be as awkward at this as at every other job he had ever attempted. On an off-period, I went down to watch him once. I found he'd thrown grapples around the jars, but had not brought a single one into the airlock yet.

I told him, "You'd better get a wiggle on, Biggs. We hit the tropo tomorrow. If those things get into the atmosphere, you'll be able to *pour* them into the airlock."

"I know," he said abstractedly, "but I'm not quite ready to—Sparks, according to that book you lent me, cosmic rays go down to $\frac{1}{100,000}$ Ångstrom units."

"That's right," I told him.

"That means they are more than ten times as intense as gamma rays."

"Right again. Why? What's the pay-off?"

"That's what I'm trying to find out," he said strangely. He finished tying a loop around one of the jars; pushed himself free and toward the airlock.

"You want me to help you drag 'em in now?" I asked.

"No thanks, Sparks. I think we'll leave them out till tomorrow," he said.

"But Captain Hanson—" I began.

"Tomorrow."

"After all, I'm just a radioman," I shrugged. "It's your funeral," I said.

HE GOT them inside the next day. I saw them lying in the corridor beside the airlock, covered with a strip of tarpaulin. And he got them in just in time, too, for about an hour later we hit the Heaviside layer.

We set out our Ampie and eased through all right. From there on, it was just an easy coast to Earth. We threw out our lug-sails—the retractable metal fins which give "space luggers" their name—and put on the power brakes. In a couple of hours we were settling into our hangar off New York spaceport.

I closed out my key and locked the radio room. There was nothing more I could do now. So I went up to the control turret and found Captain Hanson gnawing the fingernail of his index finger down to the second joint.

"Well, Captain?" I said.

"Any late news, Sparks?" he demanded anxiously.

I shook my head.

"Only bad news. The Board's sending over their appraisers immediately."

He said wearily, "Well, we did our best. If it hadn't been for that crazy Biggs, we'd still have our cargo. But as it is—"

"I wonder if International Stratoplanes need any radio operators?" I said gloomily.

We were grounded now. As we walked down the corridor the motors went off, and I could hear the hiss of the airlock opening. We reached the port just as the committee entered. Doc Challenger was there, and Col. Brophy, and old Prendergast Biggs himself. I knew, then, that things were in a bad state, or all the big bugs would not have come out.

Challenger stepped forward, beaming.

"Happy landing, Captain!" he chortled. "I need not tell you how glad we are you came in safely. We've been experiencing bad times in New York, sir, bad times! But everything's all right now."

Hanson said, "Yes, sir. But I've got something to tell you, sir—"

"Later, Captain, later! First we must take up this cargo question. Approximately $50,000 worth of *mekel* and *clab*—is that right? We have our appraisers here. If your estimate is right, the Corporation will weather this—er—mild storm."

Hanson coughed nervously. He hedged.

"Well, now, you see—about that there cargo—"

You never saw three faces lose their smiles so suddenly. There was stony silence for a minute. Then Col. Brophy said in a deep voice, "Captain Hanson, there's nothing *wrong* in your estimate of the cargo's value, is there?"

"No, sir. I mean the *estimate* was right, but—"

IT was right here that young Lancelot Biggs interrupted.

"Excuse me, gentlemen," he said, "but I don't quite understand. Is it important that we land a cargo of *clab* and *mekel?*"

Captain Hanson whirled on him.

"Biggs!" he snapped sternly. Then he turned to old Prendergast Biggs. "Sir," he said, "I've delayed telling this as long as possible. But now I must tell you. This precious nephew of yours—"

The old man smiled fatuously.

"Yes, yes, Captain Hanson. A fine lad, isn't he? What was it you were starting to say, Lancelot?"

I grabbed Hanson's arm. I thought he was going to blow his tubes and hit somebody right then and there. But before he got a chance, Lancelot Biggs was talking again. To the Captain.

"Captain Hanson," he said seriously, "I wish you'd

told me this before. I didn't realize that our cargo was so important—"

Then he turned to the committee.

"I hope you will not be surprised to learn, gentlemen, that our cargo is not vegetable. At the last minute, Captain Hanson decided to make a change—"

Hanson's face turned white. He squawked, "What! Are you trying to shift the blame to—"

Biggs' voice drowned out his protest.

"—and so, gentlemen, we have placed the cargo right here for your inspection. Look!" With a swift motion he tore the tarpaulin off the Forenzi jars. I looked—and gulped! They were the same jars, all right. Only different! They were no longer a dull, whitish metal. They were a glinting copper color! Biggs patted one of them affectionately.

"Ask your appraisers to estimate the value of these, gentlemen. I think they'll find their value to be approximately a quarter of a million dollars. These are —*pure gold!*"

It's a good thing I was holding on to Captain Hanson's arm. For just as the committee was exclaiming, "Excellent! Excellent trading, Captain Hanson!" the skipper's nerves gave out. He collapsed like a punctured bulger. I remember shouting, "Water! Water, somebody!" Then I passed out, too!

AFTERWARD, the three of us were alone in the turret. And Hanson was asking, "But *how*, Biggs? I don't get it at all? How in blazes did it happen?"

Biggs blushed and looked uncomfortable.

"Why, it's pretty obvious when you come to analyze it, Captain. I can't understand how it is that no one ever discovered it before, in twenty years of space travel. But perhaps it's because ships and bulgers are made of *permalloy* instead of lead. Or it may be that some enzyme secreted by the rotten vegetables acted as a catalyst. Lab workers will have to study that."

"You're still not telling us what happened."

"Don't you know? It was transmutation, induced in the lead Forenzi jars by the action of cosmic rays.*

Captain Hanson said in an awed tone. "Exposure to cosmic rays done that?"

"Yes. Artificial transmutations were caused 'way back in the early 20th Century through bombardment with gamma rays. And cosmic rays are more than ten times as short as gammas.

"I began to suspect something strange was happening to the Forenzi jars when I first went out to gather them in. Their color had changed slightly, and their exterior was rather more granular. That's why I came in to borrow Spark's book on radiation. What I saw convinced me that the lead was being transmuted; was then in the *mesolead* stage; approximately an isotope of thallium.

"I decided to wait and see if the transmutation would continue—"

Hanson wiped his hand across his forehead.

"Suppose there'd been more time? An' suppose'n the transmutation had gone on a step farther? What then?"

"Well, now, there's an interesting question. The next element down the ladder is platinum.** It's quite possible that—"

"Wait a minute," interrupted the skipper. "Did you say *platinum?*"

"Yes. Why?"

"Nothin'. That is, nothin' much."

The skipper rose and strode to the intercommunicating phone.

"Ross?" he yelled. "Listen—I want you to get this crate ready to roll again. We're takin' off for Venus first thing in the mornin'. An', hey, Ross! Send to the warehouse for about five—no, make it six—dozen Forenzi jars. Yeah, Forenzi jars, I said.

"And Ross—get the biggest ones they got! The Corporation ain't found it out yet, but we're goin' into the transmutin' business. And Mister Biggs comes aboard as First Mate!"

---

*Lead has an atomic weight of 207 plus, and its atomic number is 82. This atomic number corresponds to its net positive nuclear charge. Gold on the other hand, has an atomic weight of 197, with an atomic number of 79.

The loss of two alpha particles and the loss of a single beta particle in a molecule of lead, causes that molecule to become an isotopal molecule of gold, with an atomic number 79, and the atomic weight of 199. For all practical commercial purposes, this is the same as true gold.—Author.

**Platinum has a weight of 195 plus, and a net positive nuclear charge of 78.—Author.

Says Everybody is Hypnotized

A strange method of mind and body control, that often leads to immense powers never before experienced, is announced by Edwin J. Dingle, F.R.G.S., well-known explorer and geographer. It is said to bring about almost unbelievable improvement in power of mind. Many report improvement in health. Others acquire superb bodily strength, secure better positions, turn failure into success. Often with surprising speed, talents, ability and a more magnetic personality are developed.

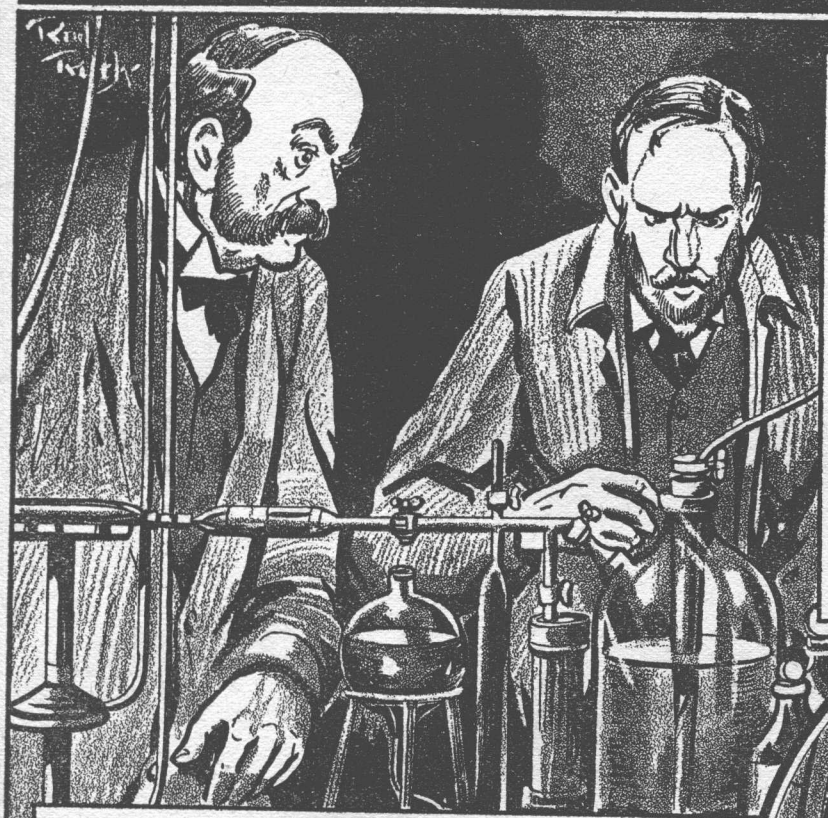
The method was found in remote and mysterious Tibet, formerly a forbidden country, rarely visited by outsiders, and often called the land of miracles in the astounding books written about it. Here, behind the highest mountains in the world, Mr. Dingle learned the extraordinary system he is now disclosing to the Western world.

He maintains that all of us are giants in strength and mind-power, capable of surprising feats, from the delay of old age to the prolonging of youth, and the achievement of dazzling business and professional success. From childhood, however, we are hypnotized, our powers put to sleep by the suggestions of associates, by what we read, and by various experiences. To realize their really marvelous powers, men and women must escape from this hypnotism. The method found by Mr. Dingle in Tibet is said to be remarkably instrumental in freeing the mind of the hypnotizing ideas that paralyze the giant powers within us.

A nine-thousand word treatise, revealing the many startling results of this system, is now being offered free to anyone who quickly sends his name and address. Write promptly to the address below, as only a limited number of the free treatises have been printed.

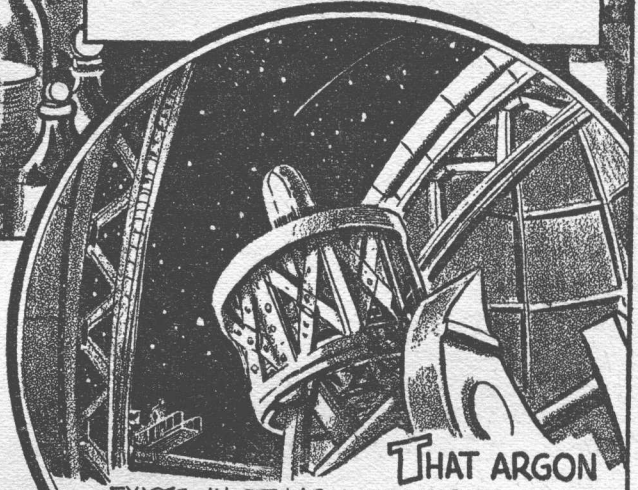
The Institute of Mentalphysics, Dept. B-22, 213 So. Hobart Blvd., Los Angeles, Calif.

ROMANCE OF THE ELEMENTS ....Argon

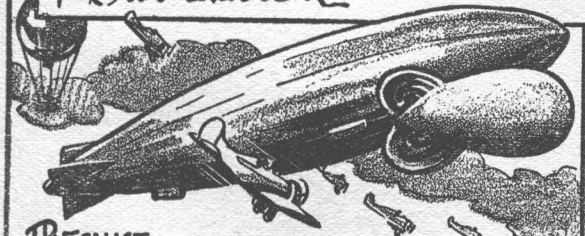


STRANGELY ENOUGH, THE MAN WHO FIRST DETECTED THE PRESENCE IN THE ATMOSPHERE OF THE GASEOUS ELEMENT **ARGON** WAS NOT EVEN A PROFESSED CHEMIST! IT WAS LORD RAYLEIGH WHO, WHILE ASCERTAINING THE DENSITY OF CERTAIN GASES (1894) WAS STRUCK BY THE FACT THAT NITROGEN TAKEN FROM THE ATMOSPHERE WEIGHED PERCEPTIBLY MORE THAN NITROGEN CHEMICALLY PRODUCED. WITH PROF. RAMSAY, HIS COLLABORATOR, HE PRODUCED ARGON BY CAVENDISH'S "ELECTRIC SPARK" METHOD, AND BY PASSING ATMOSPHERIC NITROGEN OVER HOT MAGNESIUM. THE NEWS OF THIS ELEMENT AMAZED THE SCIENTIFIC WORLD.

HENRY CAVENDISH, BRITISH SAVANT "MISSED THE BOAT" WHEN, IN 1785 HE FAILED TO APPRECIATE THE SIGNIFICANCE OF THE ALMOST PURE ARGON HE ISOLATED FROM THE ATMOSPHERE. AS A CONSEQUENCE, THE WORLD, FOR ANOTHER CENTURY AND MORE, DWELT IN IGNORANCE OF THE FACT THAT, IN THE COMMON AIR THEY BREATHED, NEARLY ONE PART IN EVERY ONE HUNDRED WAS AN ELEMENT THAT HAD NEVER BEEN CLASSIFIED—!



THAT ARGON EXISTS IN STELLAR ATMOSPHERE WAS PROVED IN THE LATE 1890'S WHEN EXAMINATION OF A METEORITE WHICH FELL IN AUGUSTA COUNTY, GEORGIA, DISCLOSED PRESENCE OF THE ELEMENT.

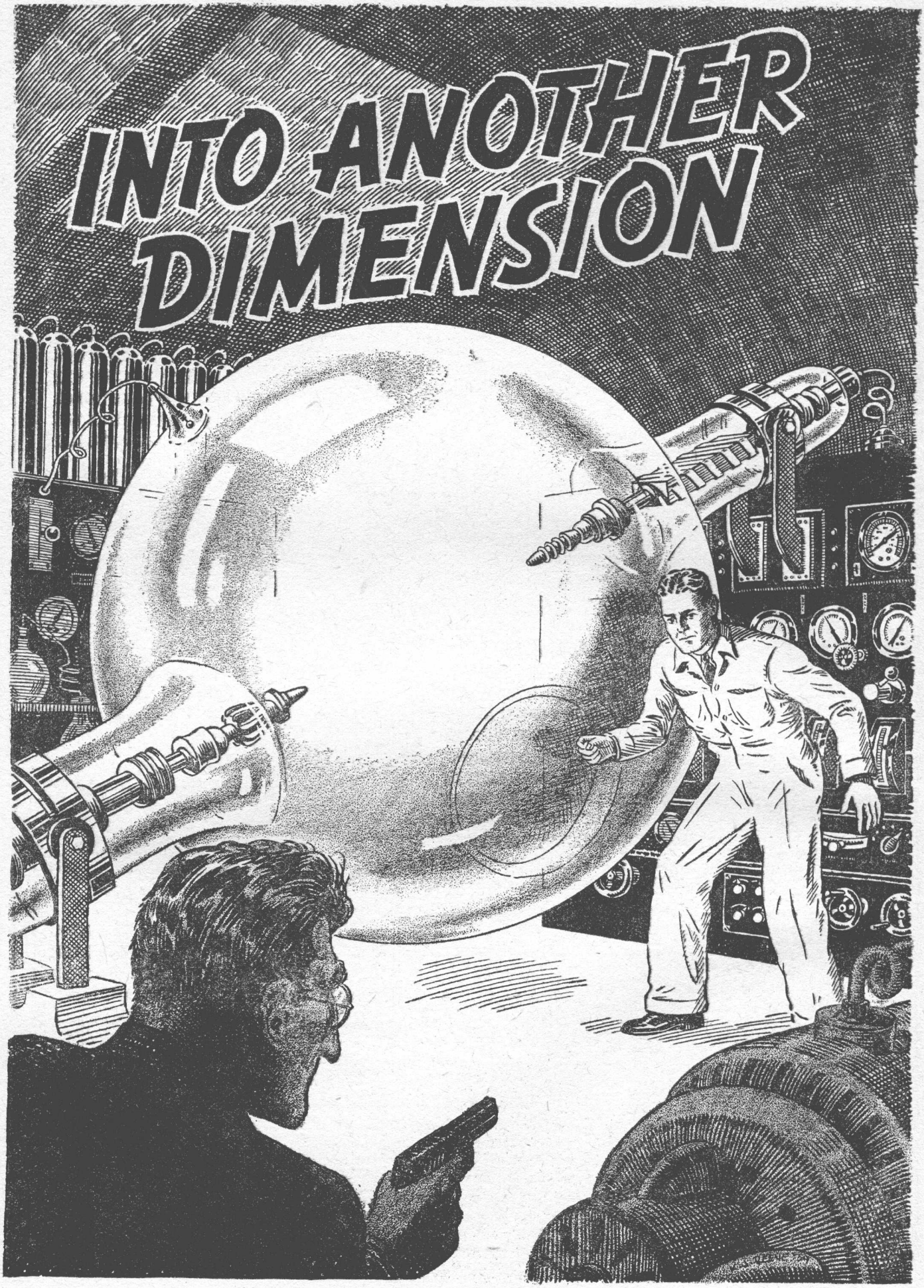


BECAUSE IT IS NON-INFLAMMABLE, ARGON HAS BEEN PROPOSED AS A GAS FOR BALLOONS.

AFTER 20 YEARS OF FREEDOM FROM EXPLOITATION, ARGON WAS PUT TO WORK AS A FILLER FOR INCANDESCENT LAMPS. BECAUSE OF ITS INERT PROPERTIES, ARGON IN LAMP BULBS MADE POSSIBLE A BETTER LIGHT; IT HELPED INCANDESCENT LAMPS DISPLACE ARC-LIGHTS FOR STREET LIGHTING. LATER ARGON WAS USED IN RADIO AUDIONS AND VACUUM TUBES.

ARGON is number 18 in the International Table of Atomic Weights. Its symbol is A and its atomic weight is 39.91. It is a colorless, odorless, tasteless gas. It occurs in the atmosphere in a proportion of 0.94 by volume and 1.3 by weight. It may be condensed to a colorless liquid which boils at—186.1°. It is chemically inert. Its molecular weight is identical with its atomic weight, hence it is monatomic. It is used for filling tungsten electric light bulbs, producing greater brilliancy and prolonging the life of the bulbs. It is produced by removing oxygen by means of white phosphorus, and nitrogen by passing it over heated magnesium.

INTO ANOTHER DIMENSION



"Get into that vibrator!" snarled Bentley. "Get in, I say!"

By MAURICE DUCLOS

Author of "The Sleeping Goddess"

CHAPTER I
Ultra-Vibrator

A LARGE lanky figure confronted Lester Kent in the open doorway. A gaunt, hollow-cheeked fellow, his nose angular and the skin stretched across it to taut whiteness. His hair was a coarse black tangle, in sharp contrast to the white smock that hung in loose folds on his frame. He might have been thirty-five years old, or he might have been fifty.

"Mr. Bentley?" queried Lester.

The man nodded succinctly.

Lester continued. "My name is Kent. Professor Stuart at college received a call from you; said you wanted an assistant for the afternoon. He sent me."

The man's eyes smoldered with sudden eagerness, and his mouth twisted into a crooked grin.

"Come in! I've been waiting for you."

Lester trailed the man into a small richly furnished reception room and toward a second door on the opposite side. With his hand on the knob, the man halted abruptly, swung around and for a long moment surveyed Kent from narrowed eyes.

"I've known Professor Stuart a good many years," he rumbled. "I know he wouldn't send over anyone that couldn't be trusted. Anything that you see, hear, or experience while here must be kept to yourself. Is that clear?"

"Of course," said Lester a little dubiously. The door was opened and he stepped into a white-walled room.

The place was a laboratory of some kind, a huge room that filled the whole building with the exception of the small reception chamber. It was well illuminated on all sides, the glass brick walls casting an even diffused light everywhere. Apparatus crowded the place in confusing masses; on benches, shelves, and stands. On one side was grouped many electrical instruments, and at the farther end the floor had been cleared for a single mammoth thing of glass. Kent was too far away to distinguish it clearly; he couldn't guess its purpose.

A motion from behind the banks of apparatus caught his attention. A young woman stepped out, and Lester's interest quickened. As she came near he realized that he had seen her before at college. Her features were smooth, symmetrical; hair brown and fluffy, eyes dark, intelligent. There was nothing unfeminine about her; even the smock she wore could not hide the willowy contours of her body.

Bentley, wiping his hands on a piece of waste, jerked out an uncourteous introduction.

"My sister, Florence," he remarked. "Mr. Kent here, is going to help us this afternoon."

The girl smiled pleasantly at Lester. "I've seen you at college. I'm taking physics, you know, so I'll be of more assistance to my brother."

She turned to Bentley then, and the smile left her face. "Aren't you taking a little too much for granted? What right have you to expect Mr. Kent to 'help' you? He doesn't know what you have in mind, or the dangers involved. You've been unfair even to have had him come here!"

Bentley's eyes darkened. "You seem to forget I'm running this, Florence. What I do is my business. Besides—" he swung around, fixed Lester with a leering grin—"I'm sure Mr. Kent will be glad to assist us."

A prickle of doubt flowed through Lester. "I've only had a year of physics—"

"Quite all right," rumbled the lanky man. "I'll get you a pair of coveralls now, and we'll be ready to start the experiment."

He turned on his heel, hurried with long strides towards the distant end of the room.

It was a strange world in which Lester Kent and Florence Bentley found themselves. A world of sudden death and strange science, ruled by inhuman beasts.

LESTER KENT leaned against a bench and watched the girl out of the corner of his eye. His heart beat faster. She was pretty, all right, standing there head poised, alert, watching her brother's receding form.

Abruptly she turned to him, a worried little furrow on her brow. "Whatever induced you to come here, Mr. Kent?" she asked.

Lester fidgeted uneasily. "Well, I'm not doing so good in my physics studies, and when Professor Stuart said he'd help me personally with my exam' paper if I'd in turn help an old friend of his with an experiment—well, I hopped at the chance!"

"But didn't they tell you what they planned, what they wanted you to do?" she asked wonderingly.

"No-o. I merely supposed it would be some routine work. . . ."

"You're in danger!" the girl whispered hurriedly. "The best thing you can do is leave—right now be-

fore my brother gets back!"

"Danger?" laughed Kent. "There's always a certain amount of danger connected to any laboratory."

"You don't understand. Your very life is at stake. You're not actually going to assist my brother in the experiment—*he's going to experiment on you!*"

"Experiment on me?" grunted Kent. "How?"

"Oh, there's no time to explain, but that's why he didn't care whether you knew much about physics or not. All he wants is a strong young man. It's taken him years and years to develop his invention. He's a fanatic on the subject, bound to try it on a human. Nothing will stop him so please leave before it's too late!"

Sudden apprehension sent the blood dropping from Lester's head. "You've given me no definite explanation. Couldn't expect me to leave. What would Professor—"

Rapid footsteps sounded nearby and Bentley strode up, holding a pair of coveralls for Kent. His eyes were gleaming eagerly.

"Kent," he said, "I suppose you've heard of the Fitzgerald Contraction Theory?" *

"Yes," nodded Lester, drawing the coveralls over his pants legs. "It's something about a moving object becoming shorter in the direction of its travel."

"That's the gist of it," agreed Bentley. "And have you ever wondered what would happen to an object that went *faster* than light, that went beyond the limit where its length was zero? What, do you believe, would become of such an object—remember, it has not been destroyed. It is still a material solid object."

For a moment the college youth did not answer. His attention was on the gaunt face of the man that loomed above him. Intelligence lurked in those blazing eyes, intelligence one-tracked and dangerously fanatic. He didn't like the way those orbs regarded him.

"I've never thought about it much," he answered soberly. "Probably an object going faster than light would enter a different universe, or the second dimension, perhaps. But of course it's just a theory—and always will be, because nothing can reach the speed of light."

Bentley's dark eyebrows hunched together in a frown. "You've given a typical answer, and you're partly correct—at least as far as to speculation on a different dimension is concerned; at present your guess is as good as the next fellow's. But you're wrong in saying that nothing will attain the speed of light!"

"You mean you've built some sort of space ship?"

The man curled his lips scornfully. "Certainly not. There's a better method of attaining desired speed. Namely by vibration. Vibrate an object at high enough frequencies and its forward and backward movement will duplicate the Fitzgerald Contraction effect just as if it moved in only one direction. But come, I'll show you the device in which I've already accomplished this feat!"

HE set off with long strides down the aisle between the apparatus and tables, leaving Lester and the girl to follow behind. She plucked at the youth's sleeve and pointed back toward the door, telling him mutely to leave. Kent shook his head stubbornly. He couldn't leave now like a cur with its tail between its legs. Besides, Bentley had yet to mention anything connected with danger.

They neared the rear of the room, halted before the huge apparatus he had seen previously. It consisted mainly of a mammoth glass globe about eight feet in diameter, with a smaller tubular portion projecting from either side. Visible in each of these sections was a great metal rod that Lester took to be electrodes. The whole thing gave the impression of an oversized Crook's tube. On the nearest side was a plug in the glass wall, beveled and ground like the glass stopper of a chemist's bottle, but large enough to admit the body of a man.

Bentley jerked his head proudly at the towering mass of glass. "That, Kent," he said, "is the result of many years of experimentation and research. It is merely a device for producing tremendously high vibrational frequencies. Anything placed within that glass ball between the electrodes can be made to vibrate so swiftly that the Fitzgerald effect occurs immediately, causing it to disappear! When the current is stopped it reappears.

"Do you grasp that, Kent? I can actually force an object into another plane of existence! Being no longer able to remain in our dimension, the object is expelled to one in which it is suited. It may reach an unknown, unguessed world coexistent with our own, or it may appear instantly beyond the farthest imaginable reaches of the galaxy where time and curving space have formed an ultra-plane to which it belongs. In other words, I can make it disappear to 'somewhere,' and I can bring it back!" He paused a moment for effect. "Watch now while I demonstrate. I've placed a large socket wrench within the tube. Look closely."

Bentley stepped over to a gleaming instrument panel, brought his hand down on a huge switch, thrust it home.

Instantly a blinding flash of light erupted into being within the tube, accompanied by a spitting crackling roar. Lester shaded his eyes from the glare,

* The Lorenz-Fitzgerald theory states that a moving object shortens in the direction of its motion, in direct relationship to its speed, and at the same time increases in mass. At the speed of light the object becomes of zero length, and of infinite mass. Naturally this is an impossibility, and it is upon this theory that most writers of science fiction base their stories. However, infinity of mass in motion must indicate infinity of space, and since space also is considered to be infinite, there would seem to be some theorem lacking to explain the real truth of what would happen to a mass at the speed of light. Just as there is no real proof that mass becomes infinite at speeds of light, there is no proof that light is the infinite speed. More recent discoveries in sub-electronic velocities seem to indicate that there are greater speeds. Therefore, Bentley's invention, although it defies Lorenz-Fitzgerald, can be accepted as equally possible to achieve its aim as any present-day theory is possible of proof in the laboratory.—Ed.

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searched for sight of the wrench. But it was nowhere to be seen; it had disappeared. Ten, twenty, thirty, seconds, and the roar continued with undiminished fury.

The physicist shouted in Lester's ear. "The wrench has been vibrated faster than the speed of light. It is now in an unknown universe!"

Kent felt his muscles tighten involuntarily. It was uncanny the way that tool had vanished before his eyes, and he couldn't help thinking of the warning Florence Bentley had given him. He glanced at the girl standing white and tight-lipped at his side. Lord! Was it possible that Bentley planned to . . .

Abruptly the light snapped out and the roar was replaced with painful silence. Bentley had shut off the power. And there, occupying its former position within the globe was the wrench!

A leer of satisfaction furrowed the man's hollow cheeks. "Are you convinced?" he asked.

"Of course, if I can believe my eyes," admitted Lester. "But after all, I don't quite see the point of the experiment."

"Blazes, man, do you suppose I would be content to send inanimate objects into that other dimension, be content at not knowing what lay beyond? That was but the first step. I've sent rabbits through the vibrator and I've brought them back again. But a rabbit can't tell what it saw and experienced. The third and ultimate step will be to send a man through!"

LESTER felt the glittering eyes boring into his, saw the determined twist of the man's face. It was only too apparent what the fellow expected of him.

A tense moment passed, then the silence was broken by Florence Bentley. She stepped toward her brother, the smooth curve of her face ashen and set.

"You're not going to put Mr. Kent—or anyone else—in that tube. The risk is too great. One of those rabbits of yours didn't come back *alive!*"

Bentley's face reddened with anger. "You damned little meddler! Mind your business, I tell you!"

"This *is* my business. It's utterly insane, this experiment. That rabbit was horribly crushed. *Something in that other world squeezed it to death!*"

"Shut up!" screamed Bentley in uncontrollable rage. "Shut up!" He lunged at her, slammed his palm savagely against her face and sent her tumbling to the floor.

Lester felt the blood hammer through his head. He leaped forward, grabbed the physicist by the collar, jerked him around. "I'll smash every bone—" He froze rigid. The man had turned in his grasp and something hard jammed authoritatively against his chest. He looked down at the blunt-nosed automatic held in Bentley's hand.

"Back!" snarled the man. "Back to the vibrator!"

Kent stared unbelievingly, braced himself. "You're insane!" he growled. "Put down your gun."

Bentley's face grew darker. "I'm giving you just two seconds to back up to that tube!" He jammed the pistol painfully into Lester's ribs for emphasis.

Dazedly the college youth took a halting step back toward the great glass sphere. He glanced about desperately for means of escape. But there was nothing—only his own resources. Abruptly he brought his knee up in a lightning move beneath the physicist's gun hand. The weapon was sent spinning over his head, clattered on the floor somewhere out of sight.

But Lester was not allowed to get further action from the hard bronze-muscled body that had made him the university's most valued oarsman. Bentley had recovered with spring-snapping swiftness, slamming his fist treacherously into Kent's stomach. Pain doubled him up and a second blow sent him staggering backward against the smooth surface of the tube. Then the physicist's huge bony hands were grabbing him by the shoulders, shaking him violently so that his head struck against the thick glass. Lester lashed out weakly, trying to break that murderous grip, but he was too late. There was a roaring in his head and a black something seemed to reach up and strike him behind the eyeballs. His knees crumpled.

Lester was conscious of being dragged roughly to his feet, of being crammed through a small opening. Then there was a hard slippery concave surface beneath him. Ages later he was aware that someone else, soft and yielding, was pressed close to him. The thudding within his head lessened and his senses cleared a trifle.

Huddled next to him within the vibrator tube he made out the lovely form of Florence Bentley. She was fumbling with the glass plug of the tube, pulling it shut with a handle on the inside.

"Open it," gasped Lester thickly. "Get out while there's time. Don't think of me."

The girl shook her head. "You'd be lost for sure. Don't you see? I crawled in here with you when brother turned his back. Now he won't *dare* switch on the current because I'd go with you!"

Kent laboriously focused his eyes on the tall form of Bentley, visible standing outside the tube. A slight frown of annoyance creased the gaunt face, but it was being slowly replaced by a look of leering satisfaction. He strode briskly over to the instrument panel, rested his hand on the master switch.

Lester heard the little gasp of surprise from the girl. Life was flowing back to him now and he tried to gain his feet but slipped down painfully on the slick glass.

Outside, Bentley was talking. His words came faintly through the thick transparent walls.

"I've warned you, Florence," he said, "about this continual interference of yours. This time you've overplayed your hand. Now I'll give you a little lesson you won't forget!"

Standing there tall, saturnine, black hair awry, he

looked scarcely human. Then with an unintelligible shout he jerked down mightily on the lever.

CHAPTER II

Land of "Somewhere"

THERE was a single instant of blinding light, of crashing sound, and Kent was conscious of a wrenching vibration that touched every atom of his being. That was all; it was over before his senses could register anything further. One instant he and the girl were within the glass globe, the next they were sprawling on a white sandy beach. On one side lay an ocean, and on the other encroached a luxuriant jungle! But what a sea and jungle! A hoarse cry of surprise escaped Kent's lips.

Stirring uneasily, almost soundlessly, stretched a vast ocean of yellow, glinting like hammered brass, an ocean slightly luminous within itself! And to the right, reaching to the very edge of the sandy beach was a riotous forest of weird fleshy growths, brilliant hued; banks of orange, masses of yellow, a thousand conflicting colors and shapes. Over all this limitless scene glared a sultry blue-white sun.

Lester Kent rose shakily to his feet and for a long minute stood there staring. The strange view refused to register on his senses; only confused bewilderment reigned. Florence huddled close to him and he put his arm around her in an involuntary motion of protection.

The vegetation that encroached eagerly upon the shore was unnamable; nothing that he had seen or imagined appeared like it. As for the sea, that was absolutely unearthly. And the sun certainly wasn't familiar old Sol of Earth. Was it possible, unbelievable though it seemed, that Bentley's vibrator had actually worked, that they were really in some unnamable universe?

He turned to the girl, struggling for words. "That forest . . . the ocean . . . do you suppose we're . . ."

The fluffy brown head nodded ruefully. "Of course brother's experiment worked! The Fitzgerald Contraction has plunged us into some unguessable place; an ultra-dimension."

Kent shook his head. "It isn't possible. Something's wrong; a trick maybe."

Florence laughed shakily. "Trick? I'm afraid not. You saw how the vibrator tube made that wrench disappear—"

"Of course," he broke in. "I'll grant it disappeared and returned. How, I don't know. But a different universe—good Lord, that's another matter!"

"You remember the wrench hadn't been removed from the tube when brother sent us—look down by your feet."

Lester gazed downward. The tool was lying on the sand by his left foot. Dazedly, automatically, he picked it up, feeling of its heavy solidness.

Only confusion and incredulity filled his thoughts, and even these were abruptly shattered. A cry of terror had sounded from the forest, a cry with a strangely human note to it!

KENT saw that the growths were in violent agitation from something forcing its way through them. Out sprang a human-shaped creature, and with another cry of fear it took off at full tilt along the forest edge. It didn't get far. A ball-like something was at its very heels. Five feet in diameter the thing was, ochreous yellow, and propelled forward with a rolling motion by small appendages about its circumference. The human creature, brown, furry, almost simian in appearance, halted momentarily as if to again seek entrance into the jungle. And in that brief second the ball behind him changed form.

A curious numbness of horror choked Lester's throat. The propelling appendages of the thing had unwrapped from around its spherical form. Ten in number, they were revealed as huge octopus-like arms that lifted the body above the ground spider-fashion. Out whipped one of the tentacles, wrapped with elastic pliantness around the furry savage and drew it back toward a pair of clicking mandibles.

Kent broke the paralysis of horror that gripped him. With a shout he bounced forward, determined somehow to save the savage from certain ghastly death beneath grinding fangs. With a single springing motion the monstrous tentacled thing spun to face him. Nor did it relinquish its hold upon its prey. He saw the fleshy drooling mouth, with the two black hideously fanged mandibles projecting from either side. Above the mouth were two eyes large as tea cups gleaming like hot coals. Even as he neared the thing the college youth saw something else that sent a flash of wonder tugging at his brain.

Strapped around the fleshy globular body was a belt, and hung to it dangled a slender green tube, an object resembling a flashlight. Lester soon learned the purpose of this contrivance, for the creature suddenly grasped it with a tentacle, extended it toward him. Nothing visible emerged from the device but the sand at his side hissed and vanished into a cloud of blue gas. There was no heat.

Lester was within reach of the creature now. He still carried the socket wrench, and he brought it down with murderous force upon the extended tentacle holding the weapon. The shiny tube was sent spinning across the sand and the arm coiled back to the body with the quickness of a snapping spring. At the same instant another tentacle whipped out and Kent found himself jerked effortlessly off the ground. With crushing force the arm held him out and the two great eyes inspected him with malignant intelligence. He brought the wrench down again but was rewarded only by increased pressure about his chest. A second arm snaked its way towards him, jerked the tool from his grasp. Then slowly the appendage holding him began to roll in upon itself, rotating him around and

at the same time drawing him closer to the gaping mouth.

Furiously Kent writhed and struggled, but the coils about him had the strength of an enraged boa constrictor. He could almost feel the mangling tearing force of those fangs. God! Was this to be his fate; crushed and torn to death by a nightmarish creature on some unknown world? Why hadn't Bentley shut off the power of his vibrating machine? Already he had kept them in this dimension many minutes longer than he'd allowed the wrench to stay.

Lester felt the creature's brackish hot breath on his face and saw the mouth and the black mandibles open. But those fangs never closed!

A SUBDUED hissing sounded near by, and he found himself dumped on the ground in the remains of the tentacle that had held him. Fully half of the monster had disappeared under the effects of the weapon Florence held in her hand. Kent gained his feet and the girl was at his side, large-eyed, lips a-tremble.

"Lester!" she choked. "Are—you all right?"

"Sure," he said gruffly, trying to hide his emotion. "I'm O. K.—and I'm beginning to understand what happened to that rabbit that came back in the vibrator crushed! Met up with one of these damn octopus things. Bloodthirsty devils; intelligent too. That ray weapon of theirs beats anything we've got on Earth."

He glanced at the creature and could not repress a twitch of revulsion. Only half the globular body remained, a cluster of four tentacles extended outward. Fleshy white entrails were spilling out when the ray had sliced through it. Great blobs of transparent jelly oozed from the exposed portions. He could see no bone.

Florence grabbed Lester's arm suddenly, jerked him from the morbid fascination that had held him.

"Look! That brown man! If we could get him back here, learn something from him. . . ."

Kent glanced around, saw that the human creature had also escaped unharmed. The fellow had prudently backed fifty feet toward the shelter of the jungle, content to watch them from that distance. Lester smiled, motioned for the man to come back. But the fellow was reluctant; several minutes passed before he would come near.

He stood nearly six feet tall, his chest and arms enormously large and powerful. His body was covered almost entirely with short crinkly brown hair and his clothing consisted only of a loincloth, with a belt holding a stone dagger slung at the side.

Kent chuckled at the expression that struggled over the fellow's face, in which fear and curiosity were oddly mingled. It was evident he regarded them as supernatural beings; but he held his ground.

Lester felt that some spoken word was necessary—not that the fellow'd understand.

"What is it?" he asked, gesturing at the remains of the octopus creature.

The sloping brows of the savage knitted in a frown of hatred; the close-set eyes gleamed. "Ahia, Koolah! Koolah," he growled in a deep slurring voice. He shook a hairy fist at the ochreous yellow mass of matter.

Kent turned eagerly to the girl. "Give me that ray weapon a minute. I've an idea."

As Florence relinquished it Lester saw that a section of the handle was raised. The thing hummed very faintly in his hand as he pressed the raised portion. Nothing visible emerged, but a limp tentacle on the ground melted away like a streamer of smoke in the wind.

The savage sprang into the air, bounced in delight, thumping his chest and hooting like an ocean liner. But he dropped in groveling terror when Kent suddenly extended the weapon toward him in an invitation to use it on the octopus creature himself.

"See," laughed Lester, turning to the girl, "doesn't dare try it himself! Thinks we're supernatural!"

Florence tossed her head and a glint of impish humor came to her eyes. "He's gone down in my estimation. I thought he had *some* intelligence!"

Abruptly Kent became conscious of a faint humming vibration somewhere up the coast. The brown man stiffened to an attitude of intentness, eyes again distending with fear. "Koolah! Koolah!" he jabbered staring wildly at the sky. The sound increased and a speck appeared over the northern horizon, growing rapidly in size.

Without further ado the savage made off at full speed for the shelter of the forest. He stopped, came bounding back when Lester and Florence made no move to follow.

"Koolah!" he chattered again and pointed at the enlarging thing in the sky. Then he tugged at Lester's sleeve, motioning toward the forest.

"Might not be a bad idea to go with him," said Kent. "Seems to be plenty hot and bothered about that thing, whatever it is. Come on!"

THE three of them bounded for the concealment of the brilliant vegetation. Barely had they dived beneath the pulpy leaves when the sun was blotted out by a huge shape overhead. Cautiously Lester peered out.

A great burnished vessel floated perhaps fifty feet over the beach. Shaped like a doughnut, it was, but the "hole" was plugged by a huge concave mirror from which a scarlet beam flared to the ground beneath—almost like a great crimson pillar supporting the ship, thought Lester. There was no other means of suspension, and only a low whirring sound could be heard from it, and even that began to fade. At the same time the scarlet beam became thinner, more tenuous and the huge craft settled slowly to earth.

On one side of him Kent felt the savage tremble; on the other Florence Bentley snuggled closer. He couldn't prevent the thrill that the nearness of her

Kent and Florence gasped as a door opened in the machine's side and three octopus creatures emerged

brought.

"What do you suppose—" she gasped.

He covered her hand with his reassuringly. "There's nothing to be afraid of. They can't see us, whoever they are."

An oblong door in the ship's curving side slid back. Kent grunted in surprise. Out scuttled three of the great octopus creatures. They moved to the twisted yellow carcass on the beach, excited hootings and pipings sounding between them. Then one found the discarded wrench and fell to examining it with a probing tentacle. The other two, as though suddenly sensing the proximity of other beings, turned and glanced searchingly along the banks of the jungle.

For a moment those flaming orbs stared directly toward Kent. He felt his muscles turn to water and the strength seep from him. There was an intake of breath from Florence and the brown man wailed almost inaudibly. But a second later those baleful eyes had turned and were searching farther down the forest. Kent felt that the slightest alien movement would have brought those creatures bounding forward like three monsterous yellow tarantulas.

Paying no further attention to the slain one, the three turned presently and headed back to the great ship. They took the socket wrench with them. The door closed, the humming began once again and the huge doughnut affair rose on its beam of crimson. Very slightly then, the beam was directed backward and the vessel moved ahead at increasing speed, finally dwindling far to the south.

Lester sprang to his feet, stood looking after it. "Those things—the Koolah—are intelligent, all right; damned intelligent! God, if we only had something on Earth like that ship!"

Florence was at his shoulder, brown eyes wide with dread. "They're ruthless, utterly inhuman!" She shuddered. "I—I'm glad we hid!"

The savage was again standing near them, chattering and plucking at their sleeves. He walked off a short distance, beckoning, motioning for them to follow.

Florence's body was rigid, her oval face firmly set, and her breathing a little fast. "What do you suppose we'd better do? Go with him? We've got to do something. I—I don't want to stay out here in plain sight!"

Kent considered a moment, still fighting the incredulity and unreality that pressed upon him. From all indications it was an unguessable matter as to how long Bentley would keep them in this strange place, how long it would be before he would reverse the vibrator apparatus and bring them back to Earth. Perhaps only a few minutes longer, perhaps an hour, or—and he suddenly sickened at the thought—they had become stranded permanently in this unnamable place! They were grossly ignorant of the dangers that might threaten them on all sides. Already the brown man had led them safely from the Koolah. Yes, a friend in this world, primitive though he might be, was an invaluable asset. Lester set his jaw grimly. They'd have to make the best of the circumstances.

"Let's go," he said. "It's something to do, anyway!"

The savage set off at a rapid gait up the beach, Kent and Florence close at his heels. After a moment a small well-worn path came into view in the wall of vegetation. They turned into it, plodding along in single file. Thick heavy odors from the growths filled the air and here and there strange brilliant flowers bloomed. Raucous birds flapped heavily from branch to branch. Once the brown man stopped in a little glade for rest. He jerked some fruit from a vine and offered it to Lester and the girl. Ovoid, the growths were, about the size of an apple, but yellow in color and very juicy. The flavor was sweet, perfumed.

As he ate, Kent sat at ease against a giant pulpy stock. Florence was close at hand, a somehow pathetic young lady trying bravely not to show her fright. Squatting opposite them was the savage. Now Lester had opportunity to examine the fellow more closely. The short hair that covered his body, the sloping brow, and his very simian appearance indicated a low stage of development. Still, the savage was not without intelligence, far above the ape. Equal to the Australian Bushman, perhaps, boasting even a crude, simple language.

Lester pointed to himself and repeated several times: "Kent—Kent."

The brown man's mobile features broke into a broad grin and he pounded himself on the chest. "Nork!" he said proudly, "Nork!"

CHAPTER III

The Koolah Raid

HALF an hour of steady tramping through the jungle brought them within hearing of strange sounds. Kent could distinguish distant cries and screams, a mixed wailing of abject terror. Nork halted instantly, his face clouded with fear. Quickly he urged them off the trail. They forced their way through the fleshy growths, parting them with ease. The ground rose ever higher, and the sound of screams and cries grew louder. At last, on hands and knees, they crawled to the edge of a huge clearing and peered forth.

To the north and south Lester saw that the clearing was bounded by a rock cliff, terraced and dotted with many caves. At the foot of this precipice was a small stream—and near at hand were two of the huge flying vessels of the Koolah, standing out in strange contrast and incongruity to their surroundings. The octopus creatures were everywhere in pursuit of the brown savages who seemed only to cry in fear and run blindly about. But Kent saw that the Koolah were not using their deadly ray weapons. They killed with their mandibles, tore and crushed their victims, then took them within the ships.

A nauseous sickness gripped his stomach. Florence hid her head in her hands. "Horrible—horrible!" she shuddered. "There must be something we can do. The ray . . ."

"Fat chance," groaned Lester. "We'd have the whole bunch on us in nothing flat—the projector wouldn't do us any good."

Nork rocked back and forth in the depths of despair.

The octopus creatures were making ready to depart. Their prey had either fled to hiding or had been killed. The Koolah were returning one by one to their ships with grisly burdens. Finally the great rectangle doors slid into place and a humming issued from within. Then the crafts rose above the clearing on thickening beams of crimson and gained momentum toward the south.

Their line of flight passed near Lester and his companions. As the vessels came above the forest he saw the growths flattened, crushed as if at the tread of invisible giants! He gave a low whistle of surprise. Incredible as it seemed, the beams of crimson *were* supporting the strange vessels! But was it so incredible? He knew that like poles of two magnets will repel each other, some, with strong enough force to sustain one of the magnets above the other without other means of support. These ships probably used a glorification of that same principle.

After they had passed from view Nork bounded to his feet and ran into the clearing, bellowing loudly to the hidden natives. Lester helped the girl up. They followed slowly, curiously.

From various places of concealment a throng of brown savages began to appear, furtive-eyed, timid. Lester saw that all were of the same general appearance as Nork, the women being of smaller and slighter build. Faces were dulled, drawn with a stamp of perpetual terror. Many a quick glance was cast skyward.

THE great blue-white sun nosing over the horizon heralded the passing of four days—swift interesting days for Lester and Florence. With the aid of Nork they had easily grasped the fundamentals of the brown people's language. The words were neither varied or the meanings complex.

Other than the growing conviction that they were permanently stranded in this fantastic world, there was now only one fly in the ointment; the ever present threatening mystery of the Koolah.

Kent could discover little about the tentacled creatures.

"Why," he asked Nork, "do the Koolah kill your people, carry them off in their flying vessels?"

Surprise flooded Nork's thick features; his jaws dropped. "You not know?" he responded incredulously. "We are food to Koolah—they eat us!"

A stunned little gasp sounded from Florence. But Kent felt no surprise. Didn't humans eat inferior animals? It was just a matter of relativity.

"Can't you defend yourselves?" he demanded. "Fight back, ambush the devils?"

"Fight!" chattered Nork in even greater amazement. Lester could see the savage's eyes dilated at the thought, his limbs tremble.

"Fight back? No! We can only run. The Koolah are powerful, evil. They fly through the air in strange humming things. They slay everything—even Tor, the great bear. We hide!"

Lester hunched forward earnestly. "Nork, the Koolah *can* be killed. We have done it—you can do it!"

The brown man shook his head, eyed the ray-projector thrust in Kent's belt. "Nork can only run. You are great, powerful, you can kill a Koolah. But there are many, many of them."

"That's just it. It'll take a united effort to drive them off. Where do they live? Far from here?"

Nork shrugged. "Who can say? It is beyond the yellow sea."

"We've got to find it, learn—"

The rest of the sentence was drowned by a scurrying on the cliff top. Down scrambled a breathless savage, shouting in a strident terror-choked voice, "Koolah! The Koolah are coming! Koolah . . ."

For a split second silence settled upon the clearing.

Then fear caught the colony in an overwhelming wave. Kent saw the age-old urge to seek flight send natives bounding blindly this way and that.

Florence made a quick gesture of dismay. "What'll we do?"

"Do?" bellowed Kent. "Keep 'em together, make 'em fight!"

He sprang out upon the ledge on which they had been sitting, raised his hard body to its full height—a strange commanding figure dressed in smeared, torn coveralls.

"Wait!" he shouted to the scurrying savages. "Don't run! It's useless, the Koolah will overtake you . . . Stay here. We'll fight! We'll drive 'em off!"

A few halted timidly at Kent's words, but a humming sound began to fill the air. They took off madly for the jungle.

FROM the south came three of the great doughnut ships riding their beams of crimson. Florence clutched tightly at Kent's arm as if seeking protection. "It's hopeless," she whispered huskily. "They'll always run—the Koolah will always kill them."

Lester braced himself, gritted his teeth. "Give me time. I'll organize the poor devils, teach them to fight with spears and bows and arrows. Human cattle now—but not for long. There's a surprise in store for the Koolah."

The three vessels dropped with a purposeful sureness into the clearing and the doors slid back disgorging scores of the yellow tentacled creatures. Over the ground they sped like huge loathsome spiders. A few of the brown savages were still on the floor of the clearing running about insanely seeking hiding places. Quickly these were snatched up to die horribly between snapping mandibles.

The cries of terror dwindled deeper into the forest. To follow, the Koolah rolled themselves into balls; they could travel through the close-knit tangle of growths in no other way.

A wail from Nork snapped Kent's attention back to the clearing.

"They see us!" howled the savage. "We are dead!"

Below, two of the tentacled creatures were scuttling up the bank to the ledge where they stood. Nork, eyes bulging, made a motion to spring away. Lester caught his arm.

"Wait, Nork! You're safe here. I can kill them!"

The Koolah were moving swiftly nearer, their multiple appendages carrying them easily up the uneven slope. Great eyes glared like unblinking bulbs of black evil.

Florence plucked at Kent's sleeve. "Hurry!" she urged. "Ray them!"

But Lester waited, eyes intent on the two creatures beneath. He allowed them to get halfway over the ledge, then drew out the enigmatic ray-projector. At sight of the weapon one of the creatures made a quick gesture of alarm. Kent squeezed the handle. Blue gas billowed out and two half bodies tumbled down the slope.

A cry of delight welled from Nork's lips—and died instantly. A little cascade of pebbles and rocks had tumbled from the incline above. Kent and Florence whirled, looked up. Almost upon them, a Koolah was moving stealthily down the grade. Swiftly Lester threw up his weapon, and the few remains of the creature came rolling down, lay twitching at their feet. But from above sounded the crashing of bodies plunging through the growths.

Lester bit his lip. "I was afraid of this!" he grated. "We've attracted their attention. Maybe our clothes or this ray-projector of theirs did it. They're concentrating on us."

A Koolah lunged into view, scuttling down the slope on flashing tentacles. Another was behind him, another and yet another—a whole battalion of them, grim purpose in their swift advance. The foremost curled a tentacle, reached for the ray-projector strapped to its globular body and extended it menacingly. Kent knew that the range was too great for the weapon to be effective; but the very presence of that projector indicated that the creatures had recognized the three humans as dangerous beings. Theirs would be no slow inexorable fight; it would be an irresistible rush sweeping over the three like the wash of a giant breaker.

Lester ground his teeth, cast a quick appraising glance along the ledge. "We've got to run for it. Our only chance!"

He spun the girl around, spurted along the ledge. There had been no need to urge Nork. The brown savage was already bounding along in the lead. The path declined gradually to the tangled wall of vegetation. Greater safety would be there; its very riotous growth offered impassible resistance to the widespread tentacles of the Koolah. The creatures would be forced to roll into ball-form to travel within the jungle. Then, too, the plants offered endless opportunity for concealment. Lester began to feel hope returning to him.

Abruptly Nork jerked to a halt on the ledge before Kent and Florence. "Koolah!" he wailed and pointed down the path.

Lester's glance darted past him. One of the big yellow creatures was to be seen waiting stolidly at the bottom of the grade. Others were emerging from the nearby forest. It came to him like the dull thud of a leaden hammer—they were trapped! Gnats between the closing jaws of a vice!

CHAPTER IV

Two Minutes

ONE other possible direction of travel was open, Kent realized. But that was off the ledge, down a ten-foot embankment and onto the open floor of

the clearing—exposed to the Koolah from every direction!

He darted his eyes desperately over the clearing, rested them for an instant on the flying ships of the Koolah. His lean face set in a hard grin and his next move was almost instinctive. The pursuing horde was nearly on them. He grabbed the girl's hand, lunged for the steep embankment at the side of the ledge. Nork scrambled after. Part way down Lester lost his footing, tumbled them both to the floor of the clearing in a miniature avalanche. He sprang up, wiping bloody lips. Florence bobbed to her feet, looked desperately about.

She choked. "We can't make it across the clearing. We're caught . . ."

Kent jerked her forward again, shouted out of the side of his mouth as they ran, "The ships—don't you get it? We'll take one!"

Florence paled a little but did not protest. The logic—and the daring of his plan found response in her. "Take the bull by the horns—right?"

"Right!" grunted Lester. "That's our trump. They haven't counted on it."

Nork was trailing behind, loyal to his friends, but none the less hesitant and fearful at approaching so near the strange flying things. Terror of the unknown was struggling mightily within him. But Koolah were emerging from all sides of the forest now, converging in an effort to cut them off. Sight of them furnished incentive, kept Nork close to Kent's flying heels.

A Koolah bounded suddenly from the open port of the nearer vessel, bore down on them. Kent sent the invisible ray lashing toward it, sliced it neatly in half. Another creature loomed up before him, disappeared amid billowing blue gas.

The Koolah from behind had almost overtaken them, but, strangely enough, were holding their fire. Kent hazarded a quick mental guess that it was fear of hitting their ships that thus restrained them.

Abruptly the burnished curving hull of the nearest vessel towered above Kent. The large rectangle port was open wide. He boosted Florence in, bounded after. Nork came last. Lester whirled, found an oddly shaped lever that snapped the door into place just as the pursuing pack caromed against the ship. Outside sound gave place to silence that was unbroken save for the heavy breathing of the three.

Kent did not lessen the taut readiness of his body; new unguessed dangers might threaten them from within the ship. He glanced around warily. They were in a huge room that evidently occupied the whole circumference of the vessel; a huge tube-like room curved to form a circle so that forward travel would eventually bring one to his starting point. It was, realized Lester, shaped like a gigantic inner tube of an automobile. It was this shape that gave the doughnut appearance to the things when viewed from the ground. But he knew the "hole" was plugged by a great mirror that projected the crimson beam. The interior of the ship was cluttered with strange complex machinery and banks of electrical apparatus. All were connected, one way or another to the central portion that held the great mirror.

Apparently the craft was unoccupied. Trails of blood led to the right, evidence that the slain brown savages had been deposited somewhere in that direction.

Florence made a wry face, turned to Kent. "Maybe they can get in—some other way. . . ."

His tanned face was set. "Maybe. Come on, we'll—" He broke off. A soft padding noise had sounded from around the curving arm of the room. A Koolah came into view, halted in evident surprise. For a moment it regarded them balefully from great glittering eyes, then came charging down the aisle, fury incarnate.

KENT jerked up his ray-projector, then thought better of it. An inaccurate shot might wipe out vital pieces of machinery, or open a hole in the ship's side. Quickly he darted his eyes about for a suitable implement to use bludgeon-fashion. Against one of the machines was a stack of silvery metal rods about five feet in length. He snatched one up just in time to meet the monster's rush. Out whipped a tentacle, but a tremendous blow from his shaft sent it jerking back.

The creature emitted a roar like the biting grind of a buzz saw and scuttled forward, an irresistible mountain of flesh. Kent was snapped off his feet by a crushing appendage, whirled toward the working mandibles. He heard a growled unintelligible shout behind him, the thud of running feet; Nork bounded past, a rod swinging murderously in his grasp. An expression of fear and loyalty was oddly mingled on the brown man's face.

The tentacle holding Kent loosed momentarily. He had a brief glimpse of a huge flame-shot eye close by, and in that instant he thrust the rod, spear like, with all the might of his sinewy arm. The bulging eye splattered like a skin of brakish wine as the blunt weapon tore into it. The octopus creature sprang into the air, emitted a deafening shriek of agony—and then thudded to the floor dead! The rod had reached its brain. A shudder convulsed the powerfully muscled body and it sagged, relaxed to the flaccid limpness of a rag.

The raw gasp that escaped Kent's lips echoed both revulsion and relief. He kicked from the loose tentacle, lurched to his feet.

"Can't leave this ship sitting here," he growled at the white-faced silent girl. "No telling what those devils outside will do. We've got to fly it!"

Stepping around the Koolah, he strode forward, followed by Florence. Nork made a hesitant third; he could not completely overcome the wild unreasoning fear that had been inbred in his race by the Koolah and their machines.

A large intricate apparatus loomed against the curving outer wall. Set above a complicated mass of

controls was a circular screen.

Florence clutched Kent's arm, cried amazedly, "A viewing screen! See!"

Lester looked closer, muttered an oath of surprise. The scene outside the vessel showed very clearly on the circular expanse; the Koolah milling disconcertedly about, part of the clearing and the cave studded cliff on one side—he might have been gazing through a super-clear window.

Kent cast an appraising glance over the strangely formed levers beneath. The ship's controls if anywhere, should be near this viewing screen. Three levers stood above the others, their prominence indicating special importance. He took hold of the foremost, pulled gently back on it.

HUMMING of machinery sounded abruptly from all about them and he felt an invisible leaden weight pressing down on every part of his body. The screen showed the ground dropping swiftly beneath. He eased slightly forward on the lever and the weight lifted. They poised motionless in the air.

A surge of exultance flowed through Kent. In that brief moment he had risen from the most primitive of beings to a superman. The products of mighty minds were at his control!

"Gods!" shrieked Nork. "The thing is cursed!" He dropped to his hands and knees in an attitude of supplication. To him the Koolah's ship was a thing to fear; he could not know, as did Kent, of the cold science that lay behind it.

Lester crushed back the chaotic elation that success brought, forced his mind again to its purpose. The second lever, he found, was for forward or backward motion, the third for right or left movement. He was getting the feel of the controls when Florence cried out. Dismay filled her voice.

"The other ship's moving! Look, it's rising!"

Lester stared, and the muscles of his jaw stood out in lean knots. One of the other vessels was rising swiftly beneath them. Presently it was beside them, halted at an equal level.

The girl was calm, but the reflection of a worried frown wrinkled her brow. "What do you suppose they're up to?" she asked.

Lester shrugged. He was assured the Koolah would not harm their ship—only as a last resort, perhaps. But they were up to something that boded no good.

Scowling, Kent steadied the craft, locked the levers. They might have rested on a stone foundation. No use running from the other ship; they'd never make an escape.

"Should be armament on this thing," he mused aloud. "If we could find it. . . ."

Florence took the cue and together they examined the mechanisms about them. It was only a moment before they spotted an elongated search-light contrivance mounted on a huge universal joint. Kent fumbled with the thing a moment, found a telescopic sight and a black handled switch near by. He swung the apparatus sideways, aimed it at the hovering craft. Hopefully he pulled back on the handle. The contrivance vibrated slightly and a pale beam leaped from its maw. There was no chance to miss. Gas erupted from the other vessel and a large section of its hull vanished. Instantly the supporting crimson beam snapped out; the craft dropped like a rotten apple. It crashed into the clearing, flattened with a vast metallic roar that carried plainly to Kent's ears.

A feeling of power, intoxicating, surging, held him. This was the heady wine of life! Conflict, battle, triumph! Nork's people would be freed. This was only the beginning. Proper guidance would make stalwart fighters of the brown folk. The Koolah's yoke would be broken!

Lester's soaring thoughts were snapped back to reality. A pale light had flashed on in the clearing. The third vessel had not risen; neither had it been idle. A beam was lashing upward from it, swinging toward them. Kent dived for the controls. He had a brief second of wild hope that he could beat the ray, but even as he pushed the lever forward it struck. Sudden choking gas filled the room, brought simultaneous cries from Florence and Nork. The floor lurched beneath Kent's feet like a live thing, tilted dangerously as he struggled with the controls. His frenzied efforts seemed unable to straighten it.

The ship began to fall, gained momentum. Like the last rays of sunlight, the great crimson beam was fading away from beneath their ship. Swiftly it dropped, and the ground rushed up to meet them with terrific speed. Kent had a brief glimpse of the limitless forest below, the clearing with the smashed doughnut vessel, the cliffs and caves. Then there was a great rending sound in his ears and a crushing blow from behind that sent him tumbling into pain-stabbed blackness.

AGES later a piercing scream penetrated his consciousness. He lay for a moment trying to place it. Abruptly it was repeated. Florence! Remembrance tugged at his mind, cleared his throbbing head. He found that he was pinioned under a twisted beam and masses of broken bent machinery. He had suffered no injury worse than bruises and cuts—but, try as he might, he could not free himself! He ceased struggling and twisted about for sight of Florence. His blood froze in his veins.

To the right a huge rent had been torn in the vessel, and standing there, half in, half out, was an octopus creature. Grasped in its tentacles was Florence Bentley! The girl seemed to have fainted. The two great eyes of the Koolah turned, dwelt unblinkingly on him. Black, deeply lustrous they were, and Kent could see baleful pleasure grow within them. Then the creature was advancing purposefully toward him.

The nearness of death sent inspiration flashing through Kent's mind. He cried out desperately. "Nork! Nork, help!"

God! He didn't mind dying—if he could die fighting. If he could get loose. . . .

There was no sight of the brown savage, no sound; neither any means of telling what had happened to him. The big Koolah, still grasping the limp form of the girl, loomed above Lester. It seemed to regard him with malignant anticipation as it sent a tentacle snaking toward his head.

Kent struggled insanely — and suddenly and strangely the universe seemed to topple over on him. There was an echo of a great crashing sound in his ears and a tingling vibrating shock. Even as it struck him he wondered where he had experienced it before. And then he found himself in a great glass globe, with Florence slouched dazedly at his side.

He gazed stupidly at the lean sardonic face of Bentley peering in at them from beyond the transparent walls. But even as Kent looked, the expression on that face changed. Surprise and wonder were mingled on it and the man was suddenly jerking feverishly at the glass manhole, opening it.

"Blazes!" came the deep voice of Bentley. "What the devil happened?"

Lester made no reply. A queer sense of unreality shot through him, and emotion and relief were suddenly tugging at the muscles of his throat. Florence clutched convulsively at him, sobbed on his shoulder. Even at that chaotic moment he felt, the warm nearness of her. He put his arm about her, comforted her. Then he helped her out of the tube.

As he followed, he noticed the objects that lay in the bottom of the vibrator; the socket wrench, many little chunks of cloth from their torn garments, and a fine scattering of loose material—in fact everything that had been projected into that other universe had returned.

Bentley was barking questions at them, wringing his bony hands impatiently.

"How'd your clothes get torn like that—and Kent —good Lord!—you've a stubble on your face now, your beard has grown! *I—I only kept you in the vibrator two minutes!"*

The physicist's last words thudded through Kent's brain like a caroming whirlwind. Two minutes—days, in that other world! Lester shook his head to clear it. After all, *was* there anything so strange about it? Everything was relative, he knew, certainly time could be no exception. Would not an ultra-dimension have ultra-time, time different from the familiar mundane continuum? Present day science suspected that time was not the unchangeable thing it seemed.

Bentley grasped Kent's shoulder, shook it, thrust his fever-shot eyes close.

"What happened?" he shrieked hoarsely. "Speak up! What'd you see? What was it like?"

Lester jerked out of the man's clutch. "Curious, eh, Bentley? Well, two minutes isn't very long; belter make the trip yourself!" He turned to the girl. "Come on, Florence, we'll clean up—then I'll take you to the best restaurant in town!"

THE END

fantastic

SOME SIXTY YEARS AGO, A BLACKSMITH NAMED **MATSON** MADE A MOMENTOUS DISCOVERY. WHILE DIGGING IN HIS MINE AT **ANGEL'S CAMP**, CALAVERAS COUNTY, CALIFORNIA, HE UNCOVERED THE **SKULL** OF A HUMAN, SUPPOSEDLY DATING BACK TO THE **PLIOCENE PERIOD**, JUDGING FROM THE STRATA IN WHICH HE MADE HIS FIND,

IT WAS STATE GEOLOGIST **WHITNEY** WHO STAMPED THE DISCOVERY AS **GENUINE PLIOCENE**, WHEN HE WAS DELEGATED TO INVESTIGATE AT THE SCENE OF THE FINDING,

JOHN SCRIBNER, WELLS-FARGO AGENT, SPREAD THE NEWS OF THE DISCOVERY WITH UNDUE ENTHUSIASM, AND THE REASON FOR IT BECAME APPARENT WHEN HE ADMITTED THE **HOAX**, REVEALING THE TRUTH OF POET BRET HARTE'S POETIC SHOT IN THE DARK, THAT THE SKULL WAS THAT OF A **DIGGER INDIAN . . .**

IT WAS THE **REV.** MR. **DYER** ASSISTANT RECTOR OF THE EPISCOPAL CATHEDRAL AT LOS ANGELES, WHO UNCOVERED THE **HOAX**, AND CAUSED SCRIBNER TO ADMIT IT WAS ALL A **JOKE ON MATSON** —

hoaxes

By JULIUS SCHWARTZ

The Calaveras Skull Hoax, perhaps one of the simplest and least sensational in intent, was one of the most credited hoaxes ever perpetrated. Begun as a prank, it fooled even the experts.

ILLUSTRATED BY JOE SEWELL

A STUDY of fantastic hoaxes involving scientific principles reveals that they are perpetrated mainly for financial gain. Occasionally, however, we find that a fantastic hoax, such as the renowned Calaveras Skull Hoax, was merely the act of a practical joker.

Matson, the innocent victim of our tale, was a blacksmith at Angel's Camp, Calaveras County, California, some sixty years ago. Every so often, when work was dull, Matson would steal away for a few hours to dig a bit deeper into the shaft of his small mine. Some day he would make his lucky strike. . . .

The momentous day found Matson picking away at the bottom of his shaft. Suddenly his sentitive touch told him he had struck something else besides the expected strata of worthless rock! Spurred on by a discovery pregnant with possibilities, Matson matched the furious thumping of his heart with the drive of his pick and soon brought his find to light.

But he was hardly prepared for such an unexpected treasure—for there, staring at him from the end of his pick, was a skull!

Matson was astonished. It wasn't difficult for him to deduce that it must be the remains of some prehistoric man for the skull could not have grown there, nor could it have fallen there.

He brought the prize find to his neighbor, John Scribner, the Wells-Fargo agent at Angel's Camp and told him the news of his exciting discovery. Scribner followed up his enthusiasm by spreading the news so effectively that the entire country was soon discussing the Calaveras Skull.

State Geologist Whitney was delegated to go to the place of the discovery where he was made acquainted with the find and secured the valued treasure. After a thorough investigation of the place of finding and the nature of the rock, he stamped the discovery as genuine and as belonging to a man of the Pliocene period.

It remained for poet Bret Harte to first hit at the truth—in a humorous poem suggesting that the skull was that of a Digger Indian. However, the country's leading scientists scoffed at the poem for they were convinced that the oldest human remains then known was that of this creature of the Pliocene era.

The action of the scientists of the Smithsonian Institute only added to the mystery of the queer affair. They took samples of the earth from the surface of Angel's Camp and at different depths in the shaft. They inspected the skull and found evidences of earth inside it. This they took away to analyze, but the results of their research never have been revealed. Possibly they learned that there was a stratum of the earth of today down in the bowels of the Pliocene strata, a statement so ponderous that they felt it would not do to make it public.

The Rev. Mr. Dyer, assistant rector of the Episcopal Pro-Cathedral in Los Angeles, accidentally learned the true story from the aforementioned John Scribner, the Wells-Fargo agent.

Scribner knew of Matson's frequent diggings into his mining shaft and planned to have a private joke at Matson's expense. At the foot of Angel's Camp was an Indian bural place where skulls could be readily obtained. While Matson was busy attending to the affairs of his blacksmith shop Scribner dug into the debris at the bottom the mine and hid the skull where Matson's pick must strike it.

Scribner was hardly prepared for Matson's enthusiasm over the fake discovery and decided to keep the hoax going by spreading the fame of the skull far and wide. When he thought the joke had gone far enough and attempted to reveal the truth he learned that it was one thing to proclaim a discovery and have it taken up by the press and another to get a denial as widely spread.

"As to the skull," Rev. Dyer revealed, "there are pictures of it in the reports to the Smithsonian Institute, and from these it is evident that the Indian was a Digger, and that he had died of violence, having been crushed on the head by a heavy bludgeon, and in such a wise as to cause him to throw the head far back, so that it was on a level with the spine, a bit of the backbone still remaining."

Ace jammed the lever down and gave the signal as the ship roared over the crater rim

Lunar Intrigue

By Thornton Ayre

"Ace" Durkan, most dangerous criminal on Earth, allows himself to be captured and sent to Luna Prison for life. But he has a good reason for it—the stakes are high

CHAPTER I
"Ace" Durkan, Tough Guy

"SCUM!" growled Ace Durkan from the darkness, crossing his heavy lead-soled boots—for the purpose of gravity compensation. "Crawling scum, the whole lot of 'em! But they can't do this to me, see? Not to Ace Durkan! I'll get out of this damned lunar pen if I have to bite my way through the rocks! They can't keep me away from Earth!"

"Aw, pipe down, Ace!" grunted another voice. "What's the use of bellyaching now? They got you—same as they got all of us. And not even you'll escape across the lava moats. The pen's surrounded with 'em, remember. If you ask me, you got off light considering your record. And that final stunt of playing around with the Polar Power Station just hollered out for trouble."

"So what?" Ace demanded venomously. "I set out to cripple the industry of the Earth, to make the big shots come into line—and I'll still do it. Yes, even from the moon! They can't frame me like this!"

He relapsed into simmering silence. Nobody spoke. Most of them were thinking of the audacity of the scheme which had caused him to be captured. On Earth, at North and South Poles stood the giant power houses which, through the Earth's natural dynamo-like spin against the ether, absorbed the power thus generated and transferred it to the world for every conceivable use.

And Ace had dared to monkey around with the North Station! That was why he was in the belly of the pen ship right now. Only one thing puzzled the other cons. Why had Ace made such a slip-up as to get himself captured?

The cons said nothing to him, but they whispered among themselves. It was better, they considered, to be a friend of Ace Durkan's than a foe. A blow from one of those fists could have felled an ox.

THE JOURNEY was over at last. The grinding of the ship's nose as she touched Luna sent a quiver through the vessel which aroused the sleeping convicts in a body. Within minutes, linked together by chain, they were marching, blinking their eyes, along the narrow catwalk of steel leading to the massive external airlock. They narrowed their eyes at the blinding glare that smote them as they tramped with their weighted boots into the open.

Ace Durkan, first in the line, spat his disgust at what he saw. No wonder the place was called "White Hell."

Here, on the moon's other side—eternally turned from Earth—was a gigantic valley, drawn thus in the moon's plasma by the pull of the mother world; a valley filled up to a 500 ft. altitude with passable atmosphere. Here, throughout the month-long day, verdure flourished in a crushing heat which usually achieved 130° F. in the shade. Yet at night it was 100° F. below zero. Bad though the ranges of temperature were, they had nothing on the frightful extremes of the earthward side, unprotected by any atmosphere whatsoever and open to the void.

Ace's eyes took in the view of the great penitentiary itself perched on a massive rock in the center of the valley. Around it, spanned by metal drawbridges of almost medieval style, was a mile wide moat of molten lava, ejected from the still hot core of the moon's interior. Round the penitentiary itself was a twenty-foot wall with electrified wires round the top. Certainly it was no easy place to crack.

"Well, like your new home, big shot?" It was the sour voice of a granite-faced warder that spoke in Ace's ear.

"Take more than that joint to hold me!" Ace retorted, smearing his hands down his tunic. "I've got ideas, see! Big ideas!"

"Yeah? Well, get movin' while you think 'em out. Go on—quick! You're holdin' up the line."

Ace marched on, scuffing up white dust round his heels as he went. He was perspiring freely by the time they had crossed the lava moat and entered the vast sundrenched yard. Here he was unfettered, taken apart from the rest into the broad, cool office of the Governor. He stood with feet apart, jaw projecting, the multiple fans blowing a cool draft round his red head.

A man with iron gray hair was busy at his desk. Ace glanced across at the opposite corner where a slim, dark girl was busy with a pile of papers. She caught his glance. He had time to see she was passably good looking, then she froze up at his impudent wink.

The man with the iron gray hair looked up sharply.

"Henry Durkan, eh?" He spoke grimly, leaned back in his chair and eyed Ace steadily.

"Yeah. Ace to you."

"You'll say 'sir' when you address me, Durkan—and if you know what's good for you you'll keep in line with regulations. You'll be treated no better and no worse than the others here. I had you sent in here so I could see what sort of a man it is that had ringed a whole planet with crime."

"So you figure I'm a sort of specimen, do you?" Ace breathed, slamming a mighty fist on the desk. "Well get this, Governor, I—"

"Take him out!" the Governor interrupted briefly. "Ore shift."

BEFORE he had a chance to continue Ace found himself whirled out into the corridor. Thereafter, sullen but passive, he went through the prison routine of haircut, measurement, allocation of duty, and so forth. He finished up in a cell with Soapy Andrews, a hatchet-faced con serving five years.

He made no observations, simply sat folded up on his bunk, hugging his knees, and gazing at the metal ceiling most of the time. At other times he watched Ace thoughtfully, but passed no comments. Accordingly Ace gave up ranting. No use raging at a guy who remained dumb.

The following day—by clock time since the day was a month long—Ace found himself busy with some hundred others just outside the prison yards, shoveling rock and ore into trucks—lunar ores, some of them rich with gold. Not that that was any advantage. Warders were dotted everywhere with flame guns and lashes. And behind them was that hellish moat of lava.

Ace was aware as he worked that the others watched him surreptitiously—some of them at least. Six of them kept talking to each other at intervals. Soapy Andrews in particular seemed to have thawed out completely for he had plenty to say, glancing at Ace as he talked.

Slddenly Ace slitted his eyes and dropped his shovel. He strode over to where Soapy was working and talking at the same time, whirled him round.

"Listen you!" He held him tightly by a fistful of front shirt. "I don't like guys who talk about me when I'm not there to put my two cents worth in, see? What are you doin'? Tellin' these mugs all about me? All you've weighed up about me in the cell, eh?"

"I was only tellin' them you're Ace Durkan—"

"So what? Any guy knows that! Now you get this—"

"And you get *this*, you big ape!" bellowed a warder, swooping down on the scene. "Get back to work, all of you! You too, Durkan! *Step* on it!"

Ace hesitated, fists clenched. The warder purpled. *"I said get back to work!"* he bellowed, then snatching out his whip he whirled the vicious lashes round across Ace's bare back. Ace winced for a moment as the tails bit deep, then he gave a taut grin.

Springing forward suddenly he lashed out his left fist into the warder's stomach. As he doubled up, gasping, Ace slammed up his right with all his strength, felt his knuckles sting under the terrific impact. The warder reeled backward, crashing his length in white dust and lay still.

"Wise guy, eh?" Ace breathed, and the red bristles of his hair seemed to stand up in fury. Then warders were running from all directions, clutching his arms, his neck. A flame gun prodded in his back.

"Better take it easy," hissed a voice. "One more break like that and you're finished, Ace. It means the lethal chamber. O. K. boys, clap him in the Governor's office for sentence."

The other convicts stood watching in awe as he was bundled off down the slope to the executive building. Soapy Andrews' axlike face broke into an admiring grin.

"It's Ace all right, boys," he muttered. "Nobody but Ace would have that much nerve, anyway—but I just wanted to make sure. That was why I kept my trap shut in the cell last night. He's all right. We'd know him from his televized photo anyway. And he's got that scar in his back too—the one he got in that gang fight two years back. Remember?"

"He'll get the cooler for this," observed "Death" Anderson grimly.

"Yes, but when he comes out we've got to rope him into the Clique," Soapy went on quickly. "No time to lose. Can't figure out how he came to get trapped. Looks to me as though it sort of queers things from the Earth end. . . ."

They turned back to work as the warders came threateningly near.

CHAPTER II

Break for Liberty

TWO "days" later a slightly subdued Ace emerged from solitary into the glare of sun once more. With the daylight and the return to ore loading his truculence seemed to slowly return—but evidently he had learned his lesson for he kept his fists in bounds. The others were not long in getting word to him.

Through devious mouths he learned of a meeting when they broke for the thirty minute recess at lunch. Accordingly, as they chewed the tough but perfectly wholesome food, Ace found a group of six cons around his, including Soapy Andrews.

"Well, what's this?" Ace snapped. "Goin' to start ribbin' me for what I did to that warder, or what?"

"Cut it out, Ace," Soapy entreated. "You don't have to get sore with us. We're you're pals. We want to know how you came to get the skids under you. Why in hell did you let 'em bring you *here?* How are the boys going to manage on Earth?"

Ace glanced at the faces sharply. "Say, you're the Clique!"

"Sure we are!" Soapy exclaimed. "Here are we, with everything doped out—ready to go to work—

then we get the shock of our lives when they bring *you* in! What's wrong on Earth? Did the scheme fail?"

"Like hell!" Ace grinned. "That's only what these mugs think. I got captured on purpose, see? On purpose!"

"But why?" Death Anderson demanded blankly.

"Break it up there! Break it up!" A warder muscled his way through: but the group regathered afterward.

"Why?" Ace resumed. "So's I could be sure you mugs had got the thing straight. I knew you boys of the Clique would make yourselves known to me in time: couldn't afford to try to find you by myself; might have put me in a spot. You've been radioing to me asking me to help you with a vengeance scheme in retaliation for the way you mugs got caught and sent here—a scheme whereby Earth's industry can be paralyzed and my agents can step in. O. K., I've fixed it."

Soapy looked momentarily uncertain. "Look here, Ace, the set-up was for radio devices to be fixed at the two polar stations—devices which we could remote-control from here. If everything's all set all we've got to do is throw the switches on the apparatus here and those two polar stations will go haywire and discharge their power into the seas of the Earth. The current will paralyze shipping, stop industry because power will be blocked, and generally give those hell fired big shots on Earth plenty to worry over. But you were caught at the Polar Station! So the scheme's sunk. . . ."

"I was caught at the Polar Station, yes—but only when I was inspecting the works the boys had done before me," Ace grinned. "I knew I'd be caught: I fixed it that way. No other way to get up here and see how you'd fixed the remote control. Don't worry. Those two stations are fixed so no guy will ever find anything wrong, until we're ready to go to town. Don't you get it? I had to get here to be sure the transmitter is properly tuned. . . ."

"YOU mean," Soapy said, "that you couldn't trust to our radio messages?"

"Listen, mug, when I do a job I do it properly! I'm not here for keeps, any more than you guys are. Once this scheme is launched my boys have orders to get us released. You leave it to me. We'll start the biggest control racket in history. Control from the moon is the best thing ever, cause the source of trouble is two hundred forty thousand miles off—and that's plenty." Ace paused and frowned. "Say, I don't quite figure how you guys ever manage to get hold of radio apparatus capable of being used for remote control."

"Simple enough," Soapy smiled. "Halford works in the radio factory. That radio factory is right next door to the main scientific instrument room. That room has radio. He's a trusty. Wasn't difficult for him to get the low down on a new instrument they've got there—a four dimensional distance traveler—"

"You mean one of those new things which can shift inorganic matter any distance through the fourth dimension and do away with real transit?"

"Just that. Experimental yet, but practical enough, believe you me. All Halford had to do was get the components we needed from the radio factory, pack 'em when he could into a crate, shove the crate in the four dimensional transitor, and—Blooey! Off goes crate to a chosen spot on this blasted moon on the earthward side. A cave, as a matter of fact, already chosen. Naturally the radio messages were sent to Earth by Halford. He watched his chance. Not very difficult."

"Nice going," Ace murmured. "How do we get to this cave where you've sent the stuff?"

"We've got it all doped out. Once we've crossed this blasted moat we're well away. The cave is under the surface about two miles west of Tycho Crater. We've figured it all out from the lunar map on the main wall of the lecture hall."

"No air beyond this valley. Thought of that?"

Soapy grimaced. "Sure! Halford's fixed that too. We've frisked wrist-watch radios, portable space suits, tabloid provisions, flame guns—all the dope, bit by bit. Halford's projected them to a chosen spot across the moat in the jungle. We were only waiting for you to give the prearranged all-clear signal from Earth over the radio—which Halford would have heard of course—then we were going into action. Instead you turned up. Imagine the shock we got!"

"Yeah; I can imagine."

Ace stood pondering for a moment—then conversation stopped perforce as the whistles of the warders blew for resumption of work. But Ace took good care to remain close to Soapy as he continued shoveling.

"Get this, Soapy; everything's fixed from my end," he breathed. "All we're waiting for is whatever plan you've doped out for cheating this moat. What do you figure on doing?"

"Tell you in the cell—later." Soapy went on shoveling as the warder hovered near.

LOCKED in for the "night," the lights out, the prison a vast tomb of darkness with steel shades drawn over the barred windows to simulate earthly night, Soapy explained. His voice was a low whisper, so low that Ace, crouched next to him on his bunk, could barely hear it at times. One had to be careful to cheat the prison's eavesdropping devices.

"We figure on using the Governor's daughter for our permit—" Soapy whispered.

"Say, would that be the dame I saw in the Gov's office the day I came? A dark one; swell figure?"

"That's her. She works as secretary to her old man. Here's the lay out. To get to the official building she crosses the pen every day at the bridge where the ore trucks go over. That happens in the morning when she comes onto the island from the residence house

on the hillside. She never misses a day. Now, by timing it, we can run a truck of ores directly over that bridge a few seconds before she arrives. We six boys will be on the truck; six are necessary you see. Figure it out for yourself. Once we've got her we've got the perfect hostage.

"Either those sourpusses at the gate lower the drawbridge and give us freedom to the hillside beyond the moat—where's it's a cinch to get to our cave—or else Gladys Dell gets the works. It just can't miss!"

Ace wagged his bullet head in the darkness. "I've got to hand it to you, Soapy: you think of everything. O. K., signal the boys in the morning and we'll grab off the dame. Suits me fine." And lying on his bunk he emitted a deep, complacent sigh.

IT was the moon's hottest day next day, with the solor rays right overhead—new moon on Earth. By eight o'clock the cons were out at their usual job under the blinding rays, nearly naked, heads protected with vast sunproof hats. Six of the workers were watching every move that was made, watching for the signal by Soapy when the moment had come.

Soapy himself, noting the exact time from the shadow cast by the rock before which he worked—a shadow which, though a circle because of the sun's overhead position, moved slowly none the less—was tensed like steel wire. But he worked with apparent calm, just finished loading the massive truck with ores to the appointed time. The guard glanced over it and nodded.

Soapy climbed on one end, Ace on the other; the remaining four took up positions on the sides. Releasing the brakes, Soapy sent the truck skimming on its rails down the long slope that led to the grinding mill two miles away—a way peppered with watchful, armed sentinels.

"We'll have to work fast," Soapy said. "If they see us before we get the girl we'll be mowed like grass. It all hangs on whether she comes at the usual time. If she doesn't, we go straight on and try again tomorrow. But I think she will."

Ace nodded grimly. He glanced up at the guards stationed every sixty yards, staring down with hawk-like eyes. The bridge was five hundred yards away: under it passed the narrow white road, built by convict labor, which led from the main entrance gate of the island. Suddenly, as the truck took a slight curve, a slim figure in white carrying a brief case, merged into view.

"That's her—right on time!" Soapy whistled, applying the brakes very gently.

"Leave this to me. . . ." Ace tensed his muscles as the truck flew down the remaining stretch and slowed momentarily. In that second he leapt off, allowing the impetus of his run to carry him forward. He hooked his arm as he traveled, clamped it round the waist of the amazed girl and bore her to the ground. In two quick movements he had zipped off her heavy lead shoes. She became like a feather in his grasp.

Hardly had he finished before a flame gun charge ate the dust into ashes not a foot away from him. Purposely making a haze, the other five came tumbling down the bank. When the dust had cleared the guards beheld six grim convicts by the bridge, Ace holding the girl aloft with consummate ease by the belt of her costume. He ignored her frantic strugglings completely.

"HEY, you mugs up there!" he bellowed. "Fire at us and this dame's finished, see? One shot—that's all—and the Governor'll be finding a fresh daughter."

He grinned up at the girl's furious, frightened face as he marched along in the midst of his companions. Quarter of a mile up the white road brought them to the main gate. The guards leveled their guns, but like those lining the truckway they hesitated at the sight of the upraised girl.

"Fire at them!" she screamed hoarsely. "Fire! They won't—"

"Oh yes we will!" roared Soapy. "You can't get the lot of us at one go, anyway, and whoever's left will finish the dame. We mean business!"

Ace lowered the girl to the ground, kept a mighty hand on the back of her neck, a grip in which she squirmed and twisted helplessly.

"Open that gate and lower the bridge!" he commanded. "And step on it!"

The guards stood motionless, uncertain. Up on the wall the alarm siren began to whine piercingly.

"Quick, blast you!" Ace thundered. "Open up by the time I've counted five or I'll twist this dame's neck so far round she'll think she's a parrot. One—two—"

The guards stirred. Up on the wall long range flame guns slashed down and carved a smoking line round the seven; but it did not dare to strike them.

"You fools!" screamed the girl. "Never mind me—get these men! They're desperate criminals—murderers—!" Soapy's hand closed over her month.

"Three . . ." Ace said inexorably, and the girl gave a stifled cry as his fingers tightened on her neck.

"Four . . ." A guard closed a master switch. Automatically the mighty grille began to move upward as the moat drawbridge lowered. In an instant Ace bundled the girl forward, raced along the bridge with his companions to the safety of the land beyond.

Rays criss-crossed in deadly fire in front of them, cutting ground under their feet.

"O. K., keep going!" Soapy panted. "This way—We want Martian's Head Rock."

He led the way through the blasting of rays and rising dust, up the rough hillside sprawling in places with the month long verdure. Once within its density the mighty leaves, like those of gargantuan rhubarb, hid them from the prison. For all that, foliage wilted and sizzled here and there at the prodding of an investigatory beam.

Ace grinned, relaxed his iron grip on the girl, even

though he still held her firmly.

"Thanks sister," he murmured. "Guess you're the best looking passport I ever saw!"

"If you think you can get away with this—" she began hotly.

"Sure we can. You're our insurance. Keep going and keep your trap shut! Go on!" He shoved her forward, only grinned again at the fury expressed on her regular, sensitive features, the flaming anger in her dark eyes. She went on willy-nilly, Soapy still leading the way with unerring accuracy, and the more they advanced into the tangle of vegetation the more the screaming and screeching from the prison abated in the distance.

AT last Soapy stopped, dived toward a solitary rock in the tangle, a rock which was shaped roughly after the style of a Martian's head. The movements of his arms inside the hollow mass finally brought forth seven space suits of the lighter, transparent variety, several air tanks with their appropriate toxic-consuming apparatus, tabloid foods and drink, a box full of sealing apparatus, and finally several wrist watch radios.

"All these wrist radios are set to one wavelength," Soapy explained. "Strap 'em on—each one of you. If anything happens so we get split up we can talk to each other. There's seven here: one each."

Without a word the others took one each, then shouldered the stuff and marched on, not pausing again until thirty minutes later when they arrived at a thinner portion of the jungle and a massive natural crater in the ground.

Soapy stopped, signaled to the suits.

"Once down here and we're all set," he said briefly. "This takes us right through the honeycomb to the other side of the moon."

"Say, you don't mean the whole two thousand miles?" Ace looked astounded.

"No; about a hundred an' fifty. We're pretty near the terminator* right here and a hundred and fifty miles under the surface brings us out at the earthward side and the cave where the stuff is. Not much of a job: most of it can be done by floating."

Soapy kicked off his leaded boots and climbed purposely into his suit, finally closed the clasps and stood inside it, every part of him visible since it was as transparent as cellophane. He nodded as he adjusted the air pressure and feeder on his back, then connected the speaker phone tuned to operate by electric vibration when airless conditions were finally reached.

Gladys Dell struggled like a maniac as she was forced into one of the suits, but in the end, realizing the utter uselessness of fighting, she stood passive while Ace sealed her up. Her grim, exasperated face looked back at him through the helmet.

"Just wait until my father tracks you down!" she breathed. "You'll get the lethal chamber for this—all of you!"

"Not while we have you," Ace reminded her shortly. "Go on—get moving!"

Stumbling, the girl followed Soapy over the crater rim and down the rubbly slope that led to the honeycomb of the moon's interior. The men switched on their helmet lights, went deeper and deeper into the moon's depths as Soapy led the way. Here and there they jumped down a hundred feet of sheer cliff, to land like feathers with the moon's sixth gravity.

In spite of herself Gladys remained close to Ace. There was something about this grim, silent tomb with its pumice walls and endless corridors of volcanic stone that frightened her. Criminal he might be, but there was packed power in that mighty body, protection in those great hands. Once she found herself wondering why a man with such a forehead had chosen crime for his career. Then she caught him smiling at her insolently in the lamplight. Tight lipped, she stared in front of her and marched on.

"Say, wait a minute!" Soapy stopped, his microphoned voice echoing eerily in the tunnel's abysmal reaches. "Do you feel something?" he demanded.

The others stopped, detecting what he meant. The floor of the tunnel was trembling with gradually increasing force.

"If there were air we'd hear roars—that's certain," Death Anderson said, startled.

Soapy's face was alarmed behind his helmet. "I don't like it, boys—maybe internal trouble. This old hulk of a moon blows off her insides at unexpected moments. Keep your eyes peeled for trouble!"

CHAPTER III

"I Want to Help You, Ace"

THEY advanced again, bodies tense for sudden upheavals—but even so they were not prepared for the devastating suddenness with which things happened. Unwarned by advance sound they had no idea what to expect.

In consequence it came as a staggering shock to them when the groun rocked suddenly under their feet and hurled them helplessly down the passage. The roof buckled inward in a cloud of dust. Boulders and masses of pumice rock came crumbling down in blinding haze. Vibration crashed along the floor—but the whole thing happened in perfect silence.

Ace scrambled to his feet, staring round on his companions, then back at the chasm that had crumbled in the floor behind them. The whole roof had caved inward, it appeared, and so had the floor. There was no way back down the tunnel except through a small hole left unexpectedly in the barrier.

"Subsidence—volcanic subsidence," Soapy panted. "Common enough, I guess— Say, where's the girl?" He broke off in alarm.

"That's what's got me worried," Ace retorted, star-

* Terminator: The boundary between light and dark parts of the moon. Since it was *new* moon, the boundary would be only slight.—Author.

ing round. Then as a faint shout came to his ears he leapt to the chasm edge.

"Help! Get me out of here!"

His helmet light stabbed the dusty dark to reveal Gladys Dell clinging for dear life to an outflung spire of rock, while below her yawned an abyss of nothing. She threshed desperately as the light fell on her. Her terrified face stared upward.

"Quick—I'm slipping! Rock's too slippery to cling to!"

Ace saw the situation in a moment. Despite the weak gravity the girl could not haul herself up that sheer mass. He slid himself over the chasm rim, clutching to whatever projections he could find, lowered himself down by inches. Within a foot of the girl her grip suddenly failed. She screamed wildly—

Diving frantically, Ace caught her wrist momentarily, but a second later she was gone, tumbling head over heels with feathery slowness into the abyss. Ace cursed, took a flying leap outward and dropped down after her. Five hundred feet below he hit bottom, flexed his knees automatically and dropped harmlessly. The girl was sprawled face downward on the cleft floor, unhurt but unconscious.

"Hey there! You O. K., Ace?" It was Soapy's voice, vibrating from the top of the shaft.

"Yeah—the dame's passed out. I'll figure a way to get her back."

Ave turned the girl over, slapped her gloved hands, shook her violently. At last her eyes opened and blinked in the lamp glare.

"I—Oh, it's you!" She recognized him with a start of alarm.

"Just about the dumb thing a dame would do to drop down this blasted hole," he growled. "I came down after you."

"I couldn't hold on any longer—" She stared at him quizzically, then up at the yawning shaft. "You —you mean you jumped all this way after me—to save me?"

"What do you think?" he growled. "Get it out of your noodle, kid, that I want to hurt you. I don't. You're just a passport to freedom, see? Alone, I knew you couldn't get out of this crack. With me, you might make it." He glanced at the walls in the beam. "No way up on the side we want," he observed. "Have to take the other side: a bit rougher there. Once we're at the top we can easily leap the chasm. Let's get moving."

HE swept the girl to her feet, tossed her over his mighty shoulders before she realized what was happening. Turning, he strode to the further wall and began climbing, digging the tough boots of his suit and the sharp claws of his gloves into the rocks. Aided by the lesser gravity and his own great strength, he began to climb.

Time and again Gladys' heart nearly stopped beating as he slipped a little. A fall now with both their weights would inevitably injure them seriously, despite the lesser gravity. And the higher they got the worse the hazard became. Gladys realized as she clung with both hands to Ace's belt how utterly impossible it would have been for her to ascend alone. She felt an unexpected new interest in this red-haired giant, even if he was a criminal big-shot and escaped con.

It seemed hours to her before he at last set her on her feet, grinned at her and jabbed a finger back at the chasm. He glanced across the sixty foot gap to where the others were waiting with blazing lamps.

"Make this jump easy enough," he said.

The girl nodded slowly. Her eyes turned to survey the rock wall that had dropped behind them . . . and particularly the small hole left to her right. She hesitated briefly as Ace stood measuring the chasm width with his eyes—then suddenly she turned, dived for the hole, and thrust her head and slim shoulders through it. It was just wide enough.

With a desperate wriggle she forced herself through, felt Ace's fingers miss their grip on her withdrawing ankles. Looking back through the hole she saw his angry face behind its helmet.

"Come back here!" he bellowed, helplessly trying to squeeze his great shoulders into the gap.

"No thanks, big shot!" her voice echoed back. "Thanks a lot for saving my life—that was swell of you, but I'm the kind of girl who prefers peace and quiet to hiking around with a lot of fugitives. One of you might turn nasty and bump me off."

She turned away and was gone. Ace stood breathing hard, swearing.

"Say, she'll tell her old man exactly where we are!" Soapy yelled. "They'll follow the tunnel through. Some of the warders might be thin enough to get through that gap."

"Not if I know it!" Ace retorted, and whipping out his flame gun he turned it on the barrier. The slablike rock causing the hole shattered instantly allowing the mass to fall inward. The barrier was complete now, impassable save by the use of exhaustive batteries of heavy ray cannons.

"Nobody'll get through that," Ace growled. Slapping his gun back in place he tautened his legs and leapt, glared round on Soapy and the others as they looked at him sharply.

"Might have been better to have left the dame down there for keeps," Soapy reflected. "Don't trust dames. Never did."

"You keep your trap shut!" Ace snapped. "I do as I like, see, and no guy can stop me! Let's go!"

IT was four hours later when the party finally arrived at a small natural cave. Soapy called a halt and flashed his torch round on a crate on the dusty floor, then up at the rough roof.

"All set," he grinned. "This is the place. We're two miles from Tycho. There's an entrance from the surface through a rill—you can see it there—the sunlight makes a thin line up there. Best way, though, is the way we came, up the tunnels. Guess we're

double safe here now that subsidence is in the way. There's the crate Halford sent. O. K., we go to work sealing this cave and getting rid of these damned suits."

They unloaded their equipment, set to work with the special tape and lengths of sealing fabric which firmly magnetized itself to the rocky sides of all gaps, large and small, making it air tight. In an hour the place was completely sealed. The cylinders were set up, hissed gently, and the toxic consumers automatically responded.

Ace peeled off his space suit with a grateful sigh and mopped his face.

"Nice going," he murmured, unpacking the food tabloids.

Once they had rested and eaten he said slowly, "Get one thing, boys. I'm taking charge from now on, see? I know exactly how things are set on earth and there's only me can handle it. First thing we want it the ordinary radio transmitter-receiver."

Soapy nodded. He and the others fell on the crate with tools and smashed it open. Within an hour they had the small self-contained apparatus fully erected. Ace squatted before it, turning the numbered dials gently, speaking softly into the tiny microphone.

"41 calling 42. . . ." he intoned. "41 calling 42. . . ."

"Code?" Soapy asked briefly, standing round with the others

Ace nodded his red head.

"But that isn't the wavelength that Halford used to contact you on Earth!" Death Anderson pointed out. "Are you sure you've gotten it right—?"

"Course I'm sure, you dope!" Ace retorted. "That was *me* you contacted before—or rather Halford did. This is my best man I'm trying to get—Clayton. We arranged for a code on a special wavelength before I left."

THE others became silent, then they looked up sharply as a voice spoke at last in the speaker.

"42 calling 41. Transmit. Over to you."

"41 contacting. All set. Advise others. Prepare for departure. Settle at Tycho Crater. You will be directed from there. Will be delay at this end during construction of remote control. Repeat."

The message repeated steadily.

"O. K.," Ace said, and switched off. The others looked at him quickly.

"You've sent for your boys to come *here?*" Soapy asked sharply.

Ace swung round. "Some of them. Dammit man, we've got to have some agents to secure our release from here, haven't we? Those left on Earth will go to work dictating similar terms when we cripple industry. The whole thing's worked out perfectly. Good man, 42. Always reliable. Right now our job is to rush this remote control apparatus to completion. Let's get started."

They turned to the task actively, following out details all of them knew by heart. Ace worked as hard as any of them, for upon him rested the onus of determining the exact winding of the coils necessary to the conversion of the ordinary transmitter. It was slow, laborious work demanding absolute exactitude.

"Take about three days to finish this," Ace observed at last, flinging down his tools and yawning. "Guess we'll pack in for the time being and carry on after a sleep."

The others nodded, took up what positions they could find in various parts of the cave. Ace found himself dozing quickly. He was awakened finally by a persistent buzzing close to his ear. Puzzled, he glanced up, found he had his head pillowed on his arms. It was his wrist watch radio which was making the noise. Somebody was trying to establish contact. Frowning, he depressed the receiver stem, hooked the tiny audiophone in his ear.

"Ace?" It was Gladys Dell's voice. Of course, it had to be her voice, Ace reflected. Outside those in the cave she was the only other person with the correct wrist watch radio wavelength.

"Yeah, this is Ace. Say, what the idea? If you're trying to establish a contact so your old man and the guards can come in and get us, think again!"

"No—no, wait a minute!" The girl's voice sounded genuinely urgent. "I've got to see you, Ace. I've *got* to! You're going to walk right into a trap!"

"You mean you *think* I'm going to walk into a trap!"

The others in the cave sat up and listened. Ace's voice was not exactly quiet. The girl's replies were inaudible to them, of course.

"Ace," went on her voice in his ear, "your radio message to the Earth must have been intercepted—and it means trouble for you! I've got to tell you personally. . . ."

"What means have I of knowing you're on the level?"

"Listen, if I join you on my own without anybody else with me that will prove I'm on the level, won't it? I'll be your hostage if I do that. Right now I'm on the moon's surface near Tycho. I couldn't get through the tunnel, of course. Your radio message said something about you being near Tycho so I figured there might be a way in from above. How do I get to you?"

Ace hesitated for a moment, then he said, "I'll come to the surface and join you, direct you here. But I warn you that if you pull anything I'll drop you where you stand! Advance westward from Tycho. I'll see you in a moment."

HE switched off and compressed his lips for a moment.

"The dame, eh?" Soapy demanded bitterly. "What did I tell you? You can't trust 'em, Ace. It's a trap—sure as hell."

"I don't reckon it is!" Ace retorted, scrambling into a space suit. "The dame's doing this on her own;

her old man would never allow her to roam around the moon's surface, and in the night to, even to form part of a plan. Nope—she's on the level, but I can't figure what her angle is."

He fixed his helmet in position, opened the small trap that existed in the sealing barrier over the crack in the roof, quickly eased himself up into the night surface of the moon and closed the trap behind him. The stars glittered like points of white hot steel in the airless void. On the horizon Earth hung bluely.

Then Ace grinned a little as caught a glimpse of a solitary space suited figure half a mile away under the stars. He walked slowly through the lava dust to join it. It was the girl all right, completely alone, backed by the titanic mass of Tycho's crater. Coming up to her at last he say her face was anxious in the star and earthshine.

"Ace!" her gloved hand caught his wrist. "Ace, I'm doing this for one reason only. You saved my life back in that chasm. I couldn't have gotten out of it except for you. So when I heard something over dad's radio I decided I ought to give you a break and tell you about it. I had come this far because the wrist radio only works at a mile range."

They had reached the crack as they talked. He swung her up in his arms, lowered her down through the vacuum trap. Once inside the cave with their space suits off he said briefly,

"Well, out with it! What's on your mind?"

"You radioed to Earth not long ago, didn't you? Saying your plans were all set and giving directions to your agents?"

"Well?" Ace's face tautened.

"You thought your message was received by one of your best agents—but it wasn't! It was the Space Authorities who took it!"

Ace's lips set in a tight, hard line. He glanced at the grim expressions of the others.

"How come you know all this?" he asked briefly. "Don't tell me your old man's sitting down calmly taking radio messages when we guys are wanted?"

"Queer though it is, that's exactly what he *is* doing!" Gladys replied quickly. "Once he was assured I'd got back home unharmed he did not seem at all worried . . . but there's a reason for that. You see, I was with him when those messages came through, and it seems that a space ship is leaving Earth for here. *You* expect it will be carrying agents of yours who will secure your release from here—but you're wrong, Ace! It's bringing a load of S. A. men and at the head of them is none other than No. 7, the toughest investigator in the system! So dad wants you all here in a bunch for a surprise capture by No. 7!"

"The dirty, double crossing skunks—" Soapy began thickly; then Ace cut him short.

"Shut up! This wants thinking about. Clayton —42—must have got himself caught, the dimwit!" Ace stroked his stubbly chin quickly. "So the whole set up's been queered from the Earth end, has it? So they figured to send these S. A. men in place of my boys? Come right to this cave and rope in the lot of us, eh? Nice going. *Very* nice going!"

"WE'VE got to get out of here and scatter," Soapy said hurriedly. Once that guy No. 7 lands we're sunk. He's a human ferret, bloodhound, and snake rolled into one."

"I'd like to be sure this dame's telling the truth," growled Death Anderson. "How the heck do we know that this ain't a scheme to stop us putting our plan in action—?"

"Oh, don't be a dumb-bell!" Ace snorted. "Hasn't she repeated the very message we sent to Earth? Doesn't that prove the Governor knows all about it? Our idea is queered all right, and until we sort ourselves out our scheme for control over Earthly industry and liberty from the moon here, is wrecked. But we're not going to scram out of here," he went on slowly, eyes narrowed in thought. "No 7 and his boys are coming. O. K., we'll finish the radio remote control, but we'll use it for a different purpose! We'll give those bright lads a welcome they don't expect!"

"Such as?" Soapy demanded.

"By a little matter of adjustment that transmitter can be made so that the remote control wave is vibratory within a range of five miles. It wouldn't work in atmosphere; too much resistance—but in a void it's a cinch. Now, the firing cylinders on a space machine use flashnite fuel. Flashnite goes off like hell at the least sign of unexpected vibration! Hence the shock proof chambers it's loaded into. Radio vibrations touching the powder, passing through the ship's chambers, will blow the entire ship to blazes. Get it?"

" Say, you've got something there!" Soapy's eyes gleamed. "Blow 7 and his whole darned outfit to Hades, eh?"

"Just that," Ace agreed slowly. "They're bound to come over Tycho's rim in order to land near that roof crack and come in here. One of us will watch from the crack and give the signal. Once that happens it's a cinch. That's better than scattering. Come on—to work!"

"I suppose you realize you're planning cold blooded murder?" Gladys asked bitterly, as she watched Ace swing around and set about the radio apparatus again with nimble fingers.

"It's them or us, sister," he retorted. "And if they're cleared out of the way it also clears the toughest nut out of the whole System—No. 7. Once he and his boys are out of the way we'll think up new ways of forcing our ends. We're out of the pen, see, and we mean to stay out. Recapture means death anyway, so what's the difference? Might as well sink everything in an effort to beat the rap."

Gladys clenched her fists helplessly. "If I'd thought for one moment that I'd be throwing away valuable lives for worthless ones, I'd never have taken the risk of coming here! You're rotten all through—all of you! Well, serves me right, I guess."

She turned away disgustedly and flung herself in a corner, watched in bitter silence.

"Just the same, kid, we appreciate your nerve. Don't we, boys?" Ace glanced at the others, winked, then joined in the guffaw of laughter.

"Women are just suckers for trouble," Soapy observed finally.

"And will your old man be sore when he finds you've gone again!" Ace chuckled.

Gladys was silent for a moment, then she said quietly. "That's the one thing I'm counting on now. When my father finds I've gone he'll not wait for No. 7. He'll go into action himself and come after me—to this place. He'll clean up the whole rotten bunch of you!"

Ace shrugged. "Let him! Soon as any guy pokes his ugly pan in here you become our hostage again. You're the goose that lays the golden eggs, see?"

Gladys relapsed into troubled silence, looked despondently round her. There was obviously no way to stop this brutal plan of murder. What inner ideas she had on possible scruples on Ace's part—the very thought that had driven her to the impulse to give him a break—had now vanished. She was convinced at last of his devilish nature. It was no longer a wonder to her that he had become Earth's toughest racketeer.

CHAPTER IV

Number 7

BETWEEN intervals of sleeping, eating tabloid foods, and nursing her private disgust—hoping for the succor which never came—Gladys was aware of the progress of Ace's scheme. She saw the final completion of the remote control apparatus and his elaborate tests.

Time and again he went through the vacuum trap in the roof to the surface to make tests while Soapy threw the switches on the device. Then he would return and recalculate, to finally pronounce himself satisfied.

"All set!" he proclaimed, stuffing away the notes he had made. "The minute that ship shows herself over Tycho's rim we throw the switches, and then—! Exit No. 7. After that we figure further." He considered for a moment. "If they left at the time we fixed for our own boys their ship should be visible from here in about another hour. Soapy, get to the surface and keep a lookout. The moment you see her rocket jets out in space let me know. Then I'll take over. You'll fire the radio control at my signal. I know the exact point the ship had to be to get the full force."

"O. K." Soapy climbed into his suit and struggled up to the surface. Ace watched the trap close then paced about slowly, pondering.

"Listen, Ace . . ." Gladys got up and caught his arm. "If you drop this—this fiendish idea maybe I can get my father to grant you all a reprieve from the lethal chamber."

"Yeah? Don't make me laugh!" Ace looked at her solemnly with his insolent blue eyes. "No, kid, this goes through, right to the finish! Men's wars are things no dame should be mixed up in. It was big of you to give us the lowdown as you did and I'll see you get returned safely home to the settlement once we've cleaned up 7 and his boys. After that— We'll see which way the comets travel," he sighed, using a slang term of the day.

Gladys parted her lips to speak, but she stopped as Soapy came clambering back suddenly into the cave.

"They're coming, Ace! About three hundred miles off!"

"Right!" Ace wheeled round and clambered into his space suit, rattled off final instructions. "I'm trailing this bulb wire after me, see? When I depress the switch and the red light goes up here that means for you to throw the radio switches. All set?"

Soapy O'd his first finger and thumb and sat at the controls. Gladys watched in helpless silence as Ace heaved himself through the trap to the surface. She turned to look at Soapy, her mind pursuing the idea of somehow preventing him. But that was not possible. The other four men were around, flame guns at their hips, watching her narrowly.

She sat down on her accustomed piece of rock at last, waiting. Mentally, she figured the time it would take the ship to reach Tycho. 300 miles: a tiny hop in airless space.

Yet it seemed hours to her before the red light suddenly gleamed. Instantly Soapy closed the switches on the apparatus, listened with a satisfied smile to the whine of the self contained generators. Gladys cramped her eyes shut for a moment, somehow waiting for the din of the explosion, until she remembered that there being no air outside not a sound would arrive.

SHE swung round suddenly as Ace came scrambling back through the trap. Tearing off his helmet he raced across to Soapy, whirled him up by the collar and pinned him against the wall.

"What's the idea of the double cross, Soapy? You dirty, crawling little rat, I've a good mind to—"

"But—but Ace, I fired, just as you told me! I—"

"You couldn't have done! The ship didn't even quiver! It's landed near Tycho and those boys are heading for here—!"

The others vaulted to their feet at that. One of them shouted,

"He fired it O. K. on the flash, Ace. We all saw him."

"Right enough, master mind," put in Gladys calmly. "I saw it too. So it failed, eh?" She smiled twistedly. "Well, it serves you right! Now think your way out of this one!"

Ace scratched his head furiously. "Must have gotten it wrong some place—calculated wrong. Else

they're using a new fuel. O. K., Soapy, I'm sorry; thought you were trying to pull something." He broke off, looked grimly round, then tugged out his flame gun. "Now get this," he said briefly. "We haven't time to get away, and the only thing left is to shoot it out when those boys poke their snoots through that trap. Come here you!" He caught Gladys by the arm and whirled her to him. "You'll be useful to stop attack," he added shortly.

"And if they don't see me and shoot first?"

"That's going to be too bad for the guy that shoots you," Ace retorted. "We take that chance. O. K., boys—all of you get in a bunch over there. I'm stopping here in dead line with the trap with the dame in front of me. Right—now we're set. When you get my signal, let 'em have it."

He crouched beside the massive rock the girl had been sitting on, held her tight against him, leveled his gun. The others took cover at the far end of the cave, watching and waiting.

Minutes passed, then came the sound of heavy space boots on the rock above, the sound transmitted through the cave's air. There was a fumbling with the trap switches and a boot came through. Ace tightened his hold on his gun as the first space-suited man dropped through.

Gladys attempted to scream, but Ace's hand closed over her mouth. The man in the trap turned round slowly, leveled his gun cautiously. To him the cave was apparently empty.

Soapy, in Ace's line of vision, made frantic gestures—but Ace shook his head. It seemed evident that it was his intention to lure all the S. A. men inside before he went to work. They came gradually until six of them were present, guns in hand. Then leaning forward round the rock out of sight of Soapy, Ace said quietly, "Over there in the corner, boys!"

INSTANTLY the S. A. men twirled round, leveled their guns on the astounded Soapy and his four comrades before they even had a chance to depress the switches on their weapons.

"O. K., come out of it!" snapped the leader of the S. A. party.

Soapy got slowly to his feet, his face malevolent. Ace jumped to his feet too, but instead of using his gun he thrust it back in his belt.

"Nice work, boys" he murmured, as the five cons stood up, fully covered their faces white with fury.

"By God, Ace—*you are No. 7!*" Soapy screamed suddenly, in mad rage. "You dirty, lying, double-timing—"

"Keep your trap shut!" Ace snapped. He turned to the leader of the party. "All right boys, clap space suits on 'em and take 'em away. That's the whole bunch. I've one or two details to clear up."

He stood watching the procedure with a taut smile round his lips. Suddenly he turned as Gladys caught his arm.

"Then—then you're not a criminal at all?" she asked. "You're a detective? You're No. 7 really?"

"Peeved?" he grinned.

"No, but I—" She looked away, discomfited. "I'm just wondering what you must think about me for the things I called you."

"And I'm wondering what you think of my rough handling of you," he laughed. "I guess we're quits, eh?" He threw a mighty arm across her shoulders, went on seriously, "Miss Dell, you have given me some of the most alarming moments of my entire career!"

She marveled inwardly at the sudden change in his voice from coarseness to mellowness; the sudden disappearance of slang.

"*I* have alarmed *you!*" she echoed.

"Yes. I'm No. 7, yes—and your dad knows it too: that was why he was so complacent. The whole thing was arranged. The Earth authorities trapped the real Ace long ago. But that did not clear up the other crooks operating here from the moon, and who might still cause a whole lot of danger unless they were stopped. Plastic surgery remodeled me to look like Ace. I studied him—every mannerism. When I was perfect I came to the moon in a pen ship. My main object was to trap those five guys in a bunch."

"Then when you radioed to Earth to your supposed criminal agents you really gave the all-clear signal to your S. A. friends?"

"Quite correct. Then you came into it. My plans were all set. The boys would have come here, and—thinking them friends—those crooks would have made no effort to stop them entering. But you queered everything by accidentally overhearing your dad's radio. Your warning here looked very likely for breaking up the crooks and scattering them.

"It might be months—if ever—before they could be tracked down in a rambling place like this moon. I had to think up hasty ways of keeping them here in a bunch. I suggested supposed ways of smashing up the approaching ship. Naturally, I knew it would never work, but they fell for it. On the surface, I signaled my S. A. boys where to come. Then I came below and raised hell with Soapy. It was quite interesting, if a little strained, while it lasted. When I was in solitary I radioed Earth and told them all I'd found out. The rest was up to chance, to whether the Clique moved once they had make themselves known to me. My fake attack on that warder convinced them I was the genuine article."

"Then my being kidnaped was genuine?"

"Yes. But I took charge of you to be sure you didn't get hurt. You played an unwitting part magnificently. Now you know why I couldn't let you die in that chasm. The real Ace would have left you, believe me."

"You're sure that was the *only* reason you saved me?" she asked, smiling.

It seemed queer to her that a man so tough could look so suddenly embarrassed.

"Suppose we get back to your old man and talk it over?" he murmured, handing her her space suit.

★ ★ ★ ★ ★ around the arena the stupodes moved. Now and then the lash of Lieutenant Braba fell on a laggard, who would yelp and jump back into line. The drummer in the band, with a flare for the dramatic, watched for Braba's whip to descend, so he could smash out a cymbal crash in time with a stupode's jump. He achieved a comic effect with every crash. Amused thousands responded with ripples of mirth.

But comedy and tragedy are often close together. A minute after the drummer's fun reached its height, a strange tragic atmosphere descended upon the scene. It began inconspicuously.

A few spectators noticed a lovely girl suddenly rise to her feet. Her dark liquid eyes were intent upon a certain part of the parade. Her terror-struck manner shocked the crowds close about her. She was not aware of the presence of anyone—human or stupode—except for one creature, a handsome specimen with a pale, expressionless face.

"Blaine!" she cried out. In a trance of terror she ran down to the arena wall, calling. The stupodes plodded on, single file, oblivious to their surroundings.

All eyes were on the girl, her extended arms and fingers that seemed to implore as she followed after that certain stupode. Over the soft tread of feet, over echoed whispers, the girl's cry sounded.

"Blaine! Blaine! It's me, Blaine—it's your wife! Look at me! Tell me you know me, Blaine! Blaine, what have they done—?"

A FEW PARAGRAPHS FROM

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BY DON WILCOX

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WATCH FOR IT—ON SALE NOVEMBER 20

PIONEER —

By HENRY GADE

Carter Wyatt was an inventor with ideals, but the conquest of space wasn't merely a matter of inventing a space ship. The price dictator Roedler demanded was a deadly world war.

CHAPTER I

An Experiment and a Rendezvous

"ROSELLA HARPER, coming here! Oh Carter, why did you do it? You know there'll be a scene, and it can't mean anything but heartbreak for her—" Ethel Duane's blue eyes trembled with tears of vexation as she faced the tall, wavy-haired engineer. "She can never reach him now. Don't you realize Karl Roedler is no longer the free, unhampered college man we three knew? He's 'Der Fuehrer' now, head of the Germanic nations, and for him to marry an Englishwoman is unthinkable—"

"She loves him," defended Carter Wyatt stubbornly. "And he loves her. I know it. Just because he has gone so far since those college days—does that mean he can't marry her? Look at the Duke of Windsor—"

"That was twenty years ago. And I am considering him; he lost his throne, didn't he?"

"For the woman he loved!" said Wyatt feelingly. "And I think it was worth it." He went on earnestly. "Ethel, I love you and I'm going to marry you, and I'd do anything to keep your love. And knowing love, I understand how Rosella must feel—" his voice became a muttering softness, "—so when she came to me and begged me to help her see him; meet him as we used to meet back on the college campus. . . ."

Impulsively, Ethel flung her arms about his neck and kissed him. "You romantic darling," she said softly. "What did I ever do to deserve a man like you?"

He grinned down at her. "Inherited a million bucks worth of good looks," he said.

"Silly!" she said, then added in sober tones. "Rosella's beautiful too. But Carter, I'm afraid we're going to be a party to breaking her heart."

"Nonsense," he returned. "Karl loves her, and he won't let political importance come between them—once she turns on the full power of those lovely violet eyes of hers. You wait and see."

She shook her head. "You're wrong, Carter. Karl Roedler no longer controls his own destiny. He belongs to Germany—and what Germany commands, he'll do. Like Hitler before him, Karl believes he has a divine mission to perform; the Fatherland is his god."

The sound of the buzzer interrupted her, and Wyatt went to answer. In a moment he returned, accompanied by Rosella who smiled radiantly at Ethel.

"Ethel!" she exclaimed. "It's been so long. And so lonesome over there in America. I've been dying to see you."

"We've missed you too," said Ethel, hugging the blonde girl to her fondly. "And we're so glad to have you here."

"Isn't it thrilling? I mean about Carter's space

"The English woman hit me with a wrench"

ship. And to think he consented to let me be one of the witnesses to the trial flight of the model—"

"The space ship?" There was an unvoiced question in Ethel's voice. "Or is it something else you're so thrilled about?"

For an instant the blonde girl stared at her, then the smile vanished from her face and her eyes became misty and sad. "I've never held anything from you Ethel, and I won't start now. I suppose Carter told you what I asked him. . . .?"

"Yes," Ethel nodded swiftly. "And Rosella, don't you think you're letting yourself in for a lot of heartaches?"

The girl's chin trembled, and for an instant it seemed she would fail in her effort to control herself, then she stiffened, and her features became rocky with determination. "Not any more than I suffer now," she whispered. "And I can't go on this way. I love Karl. I just know that if I can get the opportunity to talk to him just for a half hour—" She turned and clasped both Ethel's hands in hers. "You will try to arrange things so I'll be alone with him for awhile?" she begged. "You two are the only persons in Germany who can get past the barrier political importance has raised about him."

Ethel nodded sympathetically. "We'll arrange it," she promised. "We're to meet him at the experimental field in an hour, and you'll have your chance then. I'll see that you're alone. Carter will be arranging the experiment with the model ship—"

Signifying her gratefulness only by the firm pressure of her hands, she turned to Wyatt, her eyes lighting with interest.

"Please tell me more about the ship," she insisted. "The papers have been so vague—only that you intended a space-flight, using a radio-controlled ship with living animals as passengers."

WYATT seated himself eagerly beside the two girls, carried off by his favorite topic. His vibrant voice betrayed the faith he felt in his work.

"It's the greatest discovery since the wheel," he began. "Just think of it. Space travel at last—safe, practical! It'll mean the advancement of civilization thousands of years in a few short centuries. The colonization of all the livable world of the solar system, and later on, perhaps, even worlds of other suns. Mankind will spread out in the universe, not limited merely to the few billions earth is capable of supporting, but to countless numbers beyond all dreams of science."

"You mean that in a few years there will be many ships going to and from the planets; that new colonies, new nations will be founded on Mars, Venus, Titan. . . ."

Wyatt sobered. "No, not as fast as that. Even this little model rocket, not built for human beings, costs several million dollars. A larger ship is being built, large enough to carry human beings to Mars, but it is costing as much as two great battleships. Even this one ship would be impossible, were it not for the huge grant Karl has secured for me. It seems he's the only one in the world who has the vision and foresight to see what interplanetary travel will mean to man. No Rosella, it'll take centuries of hard and continuous effort, exploration, colonization, before even a beginning of the great work is completed. Centuries of time and money, with no thought of profit. . . ."

"No profit?" queried Rosella. "Won't they find gold, jewels on those other planets?"

Wyatt shrugged. "Maybe beyond all dreams. But it'd cost more to bring a shipload of gold to Earth than it's worth. No, there'll be no profit, for centuries. The only profit will be the incalculable one of mankind's progress, of the advance of civilization."

"But then who'll finance those first expeditions, those first colonies?"

"I haven't considered that yet, but surely there must be future-minded philanthropists who'll finance a few ships without thought of recompense, and with a few ships, the work can go on slowly. Karl has done his share by giving me the opportunity to build the first ship, and prove my invention practicable."

"Carter," Rosella said wistfully, "you have magnificent dreams, don't you? So much different in nature than the common run of human being. Somehow, I envy Ethel, or I would, if it weren't for the fact that I'm so much in love with Karl . . ." she paused uncomfortably and an instant of awkward silence reigned. Wyatt broke it by hastily launching once more into his subject.

"My invention has been the result of tackling the problem from another angle. The theory of rocket ships is all right, but there's no fuel capable of taking a ship off the earth and away from its gravitational influence. In order to lift a ship away from the earth, it'd require an initial velocity of seven miles per second, and an expenditure of four hundred tons of fuel.

"So I sought another answer, and found it in the field of electronics. In short, I've found a method of reversing gravity to an efficiency of eighty percent. This makes escape from Earth a comparatively simple matter, even with present-day fuels; in fact the greater part of my motive power is gravity itself. Out in space we'll use no fuel at all except for steering."

Wyatt glanced at his watch, then rose to his feet.

"Come on," he said. "We've got to get out to the field. Karl will be there at two, at the hangar office. We'll get there a little before him. Then we'll leave the place to you for a half-hour, Rosella, and I wish you luck. Just turn on the full power of those lovely eyes of yours, and he'll forget he ever was the ruler of the Germanic nations!"

CHAPTER II

Preparations and Sadness

WYATT stood beside Ethel surveying the level field beyond the hangar, the tall wire fence with

the group of gathered scientists, newspapermen and government officials clustered behind it awaiting the demonstration of the model ship. He glanced back at the tiny office off the hangar, where Rosella waited.

"I'll be in the hangar, fixing things," he advised. "When Karl comes, have him wait in the office. You can manage to let him go in first, and then, when he sees Rosella, your absence won't occur to him."

She nodded. "I hope it works out. But I'm awfully afraid Karl will be very angry."

"Somebody's got to bring him to his senses," said Wyatt feelingly.

"Somebody's got to bring *you* to your senses," said Ethel. "You seem blind to the fact that Karl is no longer a free man. . . ."

"Bunk!" retorted Wyatt, and walked off toward the hangar.

When he had disappeared inside, Ethel turned to scan the roadway leading to Berlin. She swallowed a bit nervously as she saw a large sedan approaching. A moment later it roared to a halt before her, and she stepped forward to welcome the youthful German ruler.

"Ethel," he said cordially, stepping from the car and waving his accompanying guards away with an imperious hand. "You're looking exceptionally fresh this morning—such red cheeks."

She looked aside. "I'm a little nervous."

"About what? Surely not just because we are going to shoot two million dollars into space for a round trip to the earth?"

"It *does* mean an awful lot though," she pointed out, "without considering the cost. Carter is depending so much on those animals coming through it alive."

"And they will! But where is he?"

"In the hangar, getting ready for the flight. He won't be ready for another half hour. We might as well wait in the office—"

Roedler nodded. "Fine. We can talk then. I get so little opportunity to relax—" he sighed a bit, then smiled. "After you," he said.

For an instant Ethtl hesitated, then took him arm. "Must Der Fuehrer always be so formal?" she chided.

"Certainly not. After all I am human. . . ." he grinned down at her.

"We have a new visitor today," said Ethel. "I think you'll be glad to see her."

"Her?" Roedler looked mystified. "Who?"

"You'll see in a second," smiled Ethel as they reached the office door. She entered and Roedler followed close behind. Inside, Rosella turned nervously from a window and faced them. Ethel stood aside.

"Rosella!" burst from Roedler's lips, and he paled slightly.

"Karl!"

With a glad cry, Rosella came forward and flung herself into his arms.

TACTFULLY Ethel slipped from the office and closed the door behind her. Then, to keep from thinking too deeply, she approached the gathered dignitaries and reporters and greeted them all, answering the questions of both scientists and newspapermen alike. For a half hour she wandered about among the group, then advanced as she saw Wyatt approaching.

Reaching her, his eyes asked a question, and she nodded slightly toward the office. There was no sign of either Roedler or Rosella. He smiled a bit and addressed the group.

"We're now ready to launch the model. I'll have it wheeled out onto the field in a few moments, and then I promise you'll see something."

A newspaperman advanced. "If I may," he questioned, "just how do you propose to launch the ship, and how do you propose to control it in its flight and return to this field, after circling the earth at a height of ten thousand miles?"

Wyatt's eyes lighted with enthusiasm. "Using a new discovery of mine, the effect of gravity will be reversed with an efficiency of eighty per cent. Under those conditions, it will be a simple matter for the motors of the ship to lift it into the air. Speed will be built up by use of ordinary propellers, then at ceiling, rockets will go into action and I estimate it will take less than ten pounds of fuel to complete the escape of the ship from the remaining gravity attraction. The controls are quite complex, of course, and in this experiment I will operate them by radio from the ground activating a series of radio-controlled robots in the ship."

"Robots?" asked the reporter eagerly.

Wyatt grinned. "Not the sort of robot you're thinking of. There is no human form to them. They're simply arrangements of photo-electric cells, electrical relays, balanced coils, all activated by automatic radio controls, attuned to the master director radio set here in the hangar."

"What about the Heaviside layer?"

"We're using extremely short waves, and so far as I know, we've never detected any reflection, so they undoubtedly go through. Of course, in actual flight, radio controls will only be useful in landing and taking off. Piloting the ship will be a human element out in the depths of space."

"And you're sure it can be done by humans?"

"We intend to prove that today. I've got a number of animals aboard the test ship. A dog, a cat, a chicken, a canary, a bullfrog—and I'm confident none will be harmed by the flight. The large ship now being built by Krupp will be capable of a flight to Mars and even further, with a crew of eight."

The reporter stepped back. "You'll be the earth's greatest inventor, if it works," he remarked. "But as you say in your country, I'm from Missouri, at least in credence."

Wyatt laughed and turned to the hangar. "We'll show you, then," he said. "Right now!"

"Tell Karl and Rosella we're ready," he directed Ethel and strode on.

Ethel made her way to the office and entered. Cross-

ing the threshold, she halted in surprise and stared at the lone figure of Karl Roedler. He rose to his feet, his face a study in soberness.

"Why did you do it?" he asked reproachfully.

She ignored the question. "Where's Rosella?"

He winced. "Gone."

"Gone? But where—" she paused in dismay, then tears gathered in her eyes. "I'm sorry, Karl," she whispered. "I'm so sorry. . . ."

He squared his shoulders and faced her. "Carter is ready?" he asked her gently.

She nodded dumbly and turned to the door to lead the way. Roedler followed in stony silence, only his eyes telling of the struggle going on within him.

CHAPTER III

An Unexpected Test Flight

"THAT thing, a test ship!" The voice of the reporter was incredulous. "Why it's thirty feet high!" Looks like a full sized ship to me."

Wyatt paid no attention as he directed the placement of the long cigar-shaped metal cylinder on its flat base and its wide, angular tail fins. Curiously like a huge bomb it looked, aiming directly at the zenith. Through several ports that were visible, it was apparent that the hull was of incredible thickness. Of the breadth, perhaps half was hull—walls thirty inches thick, formed of many layers of various metals and insulating substances. It was quite evident where the enormous expense came in. The ship was a masterpiece of construction, each portion made as scientifically perfect as was humanly possible.

Preparations completed, Wyatt mounted the seat of the radio control apparatus, built onto a huge truck. A few moments he worked, throwing switches here and there, adjusting dials and meters, then he spoke.

"Here we go!" he announced. He pressed a switch. Tubes glowed, and a low hum came from the truck. There was a peculiar crackling noise, as of high-tension electricity leaking past insulators.

Out on the field, a quarter-mile away, a huge propeller mounted atop the ship began to revolve and the sound of a powerful motor droned across the field. The test ship rose into the air, ascending almost straight up. Faster and faster it rose, until it became a gleaming silver fleck in the sky, then abruptly a brilliant flare of light came from its base. A rapidly growing streak of black smoke rose straight into the upper atmosphere like a towering spire. The black line dwindled until it became a thread, then abruptly it was gone. The ship itself was no longer visible.

"Mein Gott!" gasped a German air officer. "Into the stratosphere in less than five minutes! Even without space travel, this is an achievement!"

Roedler stood beside Wyatt. "You plan to circle the earth at 10,000 miles?" he asked. "How long will that take?"

"About three hours. I've arranged the course so that the observatories can follow the flight of the ship. We should have a radiogram from the Mt. Wilson observatory in an hour, and then others in order from Tokyo and Irkutsk."

IN the background, Ethel leaned against the hangar and thought deeply. She pictured in her mind the scene that must have occurred between Rosella and Roedler. In imagination she could see the stricken look that must have been in her eyes as the ambitious Roedler had destroyed her hopes. But where had Rosella gone, in her blind grief?

The sound of staggering footsteps behind, from the hangar door, aroused her, and she turned in amazement to face a mechanic, his face stained with blood.

"Good Lord, Fritz!" she exclaimed, hurrying up to him, "What happened to you?"

The mechanic's face was pale. "The ship—it is gone?"

"Yes, but. . . ."

"Himmel!" he moaned. "Then I am too late."

In sudden fear, Ethel gripped his shoulders. "Late," she gasped. "What are you too late about?"

"The English woman," he whispered. "She came out in the hangar and told me you had given her permission to look at the ship. Then she hit me with a wrench. It did not knock me senseless, but I couldn't move. She dragged me behind a fuel barrel, then she got in the ship—"

Ethel went ghastly. "You mean she's—she's *inside*—now. . . .!"

"Yah!" the mechanic stiffened and shoved her aside. "I must tell Herr Wyatt. . . ."

She gripped his arm. "No!" she gasped. "No! You mustn't, now. . . ."

"Yah," he insisted. "I must. I will lose my job if I do not. He staggered toward the control truck.

Ethel's eyes followed, shifting to Karl Roedler's face as though fascinated. The mechanic reached the truck and shouted up to Wyatt.

Ethel saw Wyatt leap to his feet in consternation. Once more her attention riveted on Roedler.

The German ruler went white as death, and he gripped the mechanic's shoulders savagely as he spoke in a voice almost unrecognizable. "Are you sure?" he croaked. "Are you sure it was Fraulein Harper?"

"Yah, yah, Herr Roedler," said the mechanic hastily, frightened by the appearance of his ruler. "It was the English woman."

Roedler turned in a daze to Wyatt, atop the truck.

"Carter," he gasped in stricken tones. "Carter—you must bring her down—safely? You *must*. . . ."

CHAPTER IV

Velocity of Escape

NEVER in his whole life had Carter Wyatt so feverishly hovered over a bank of instruments as

he did now. There, beneath his fingers, lay the only link between a hurtling bit of metal, flashing high up above the stratosphere in a complete circumnavigation of the globe, and the landing field where it must be brought safely down, were he to save a human life —if the unknown quantity out there in space had not already extinguished its lonesome flame.

Nervously his fingers responded to every reaction, every automatic signal. Delicately he kept his carrier wave fixed, unmoving, on the unseen objective.

"Carter," came Ethel's quiet, stricken whisper. "Is everything . . . going . . . all right?"

He stared at her for a moment, then nodded. "Yes. As far as I can tell from these instruments, the ship is progressing as we planned, except. . . ."

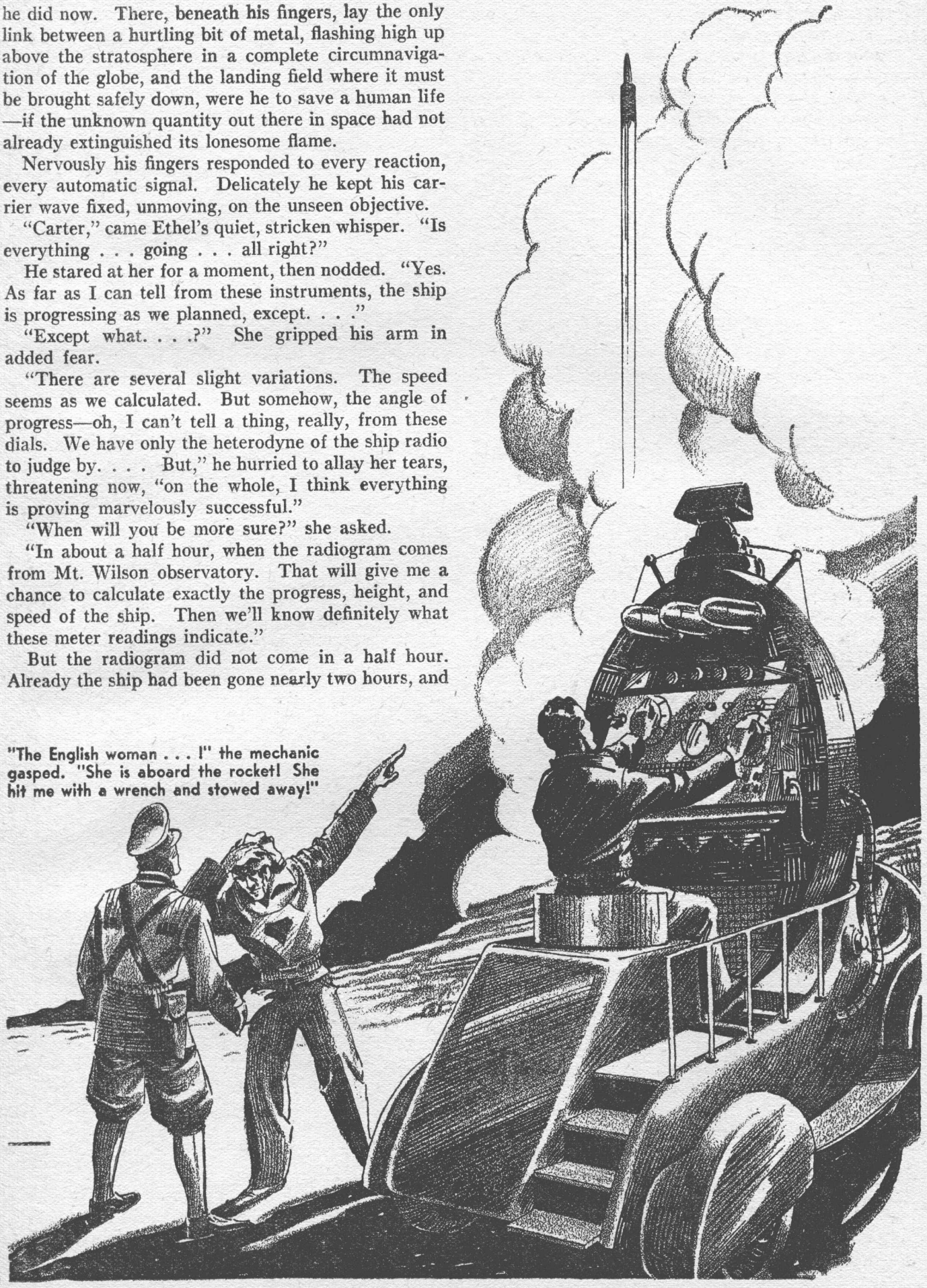
"Except what. . . .?" She gripped his arm in added fear.

"There are several slight variations. The speed seems as we calculated. But somehow, the angle of progress—oh, I can't tell a thing, really, from these dials. We have only the heterodyne of the ship radio to judge by. . . . But," he hurried to allay her tears, threatening now, "on the whole, I think everything is proving marvelously successful."

"When will you be more sure?" she asked.

"In about a half hour, when the radiogram comes from Mt. Wilson observatory. That will give me a chance to calculate exactly the progress, height, and speed of the ship. Then we'll know definitely what these meter readings indicate."

But the radiogram did not come in a half hour. Already the ship had been gone nearly two hours, and



"The English woman . . . !" the mechanic gasped. "She is aboard the rocket! She hit me with a wrench and stowed away!"

still there was no report of it. Wyatt's face grew whiter as he stuck by his post.

Roedler moved anxiously to his side, while in the background Ethel stood with the group of silent reporters and spectators who made notes from time to time as the dramatic, tragic minutes passed. Here was a story that would scoop the world, and they were tense for every development, but remained respectfully and thoughtfully in the background, in deference to the tenseness of the grim task that faced Wyatt and his men.

"Something is wrong, Carter," Roedler spoke in a voice that now held deadly calm. His face was emotionless, stiff, frozen. Only his eyes betrayed the real, icy fear within him. "Your radiogram should have been here by now."

Wyatt nodded slowly. "Perhaps they had difficulty in picking up the ship. But according to my reactions here, things are still adhering to some sort of schedule, as I planned them, with slight differences I don't understand. . . ."

Roedler did not answer, but turned and stalked to his aides. He addressed one of them.

"Back to Berlin," he commanded. "Radio the Mt. Wilson Observatory for their observations. It is urgent that they send us computations immediately."

Stonily he stood, staring at the sky, while the aide whirled his cycle about and sped toward the distant city.

ANOTHER hour passed, then down the road came the returning cycle, a message clutched in its rider's hand. Roaring to a halt, he leaped off the cycle and raced forward.

"The messenger was already enroute, Herr Fuehrer," he reported swiftly to Roedler. "I intercepted him and brought it on."

"Good," snapped Roedler, grasping the envelope, wheeling and almost running to where Wyatt stood erect, waiting with anxious posture for the report. Snatching it from Roedler's upstretched hand, he tore it open. Ethel moved over beside the German ruler, clutched his arm as he stared, up waiting

Wyatt's brow drew together in a puzzled frown while he read, then he bit his lip. "Quick, Ethel," he said in strained tones. "Up here and figure this out for me. Take these figures. . . ."

She snatched her pencil and notebook from her pocket and mounted the truck.

"Height, 19,400 miles . . ." he began.

"Carter!" she cried in apprehension. "That's . . . nearly twice—!"

"Speed, 24,504 miles per hour . . ." he went on swiftly, his face blanched. "Quick, Ethel, what's that boil down to—per second?"

The pencil fairly flew as she calculated rapidly, then:

"It's 6.8 miles per second," she gasped.

He stared. "Great God!" he exclaimed. "It can't be. 6.8! That's nearly twice what is should be—seven miles per second is *escape velocity!*"

"Escape . . . velocity—?" faltered Roedler from the ground. "What does that mean?"

Wyatt's face was grim. "It means that the ship is speeding along at nearly twice the height we wanted, and that its speed is only two tenths of a mile per second below that necessary to entirely escape the gravitational field of the earth."

"And that means . . ."

"If the speed increases, the ship will leave the earth —entirely—forever!"

Roedler stared up, his eyes unseeing, his fists clenched. He said no more. About his jaw tiny muscles stood out sharply, betraying the tightness with which his teeth clamped together.

Ethel gripped Wyatt's arm. "But—why?" she questioned. "What could have caused . . .?"

"Either one of the two things, or both," he replied, concentrating. "The gravity reversal is more efficient than I thought—or the fuel is more powerful. More than likely both factors enter into it. At any rate, the ship is nearly twice as far away as I intended, and dangerously near escape velocity. Exactly how near we won't know until the Tokyo observatory reports."

"When will that be?"

"It should be very soon now. At that speed, the entire circuit of the earth—at that distance about 147,000 miles—should be made in six hours. Tokyo's half way."

He turned back to his controls, studied them carefully.

"How is it, then," she continued her questions, "that your instruments showed only slight variations? I should think that twice as far away, and so fast—"

"That's just it," he pointed out. "The angle of reception is practically the same, since the added speed compensates for the added distance. The ship is still sweeping out equal arcs, and thus my instruments register practically the same readings at 20,000 miles as they would at 10,000."

Roedler clambered up on the truck beside them. "Can't you cut the ship's speed with the rockets—shut them down a bit?" he asked tensely.

Wyatt shook his head. "They are already cut down. You see, the calculations were automatic in that regard. There was a steady increase in speed until the desired velocity was reached, then the rockets cut out. The ship is traveling now in what amounts to an orbit, without power, simply drifting. Whether it will reach the velocity of escape depends on how much of the distance had been traveled before the rockets shut off. As it is, the balance must be very delicate, and in order to brake the ship, it would be necessary to turn it around. I don't want to do that until it completes its journey, because there is not sufficient fuel to operate those rockets for more than one descent, and that's what a brake at this time would amount to. And Lord knows where the ship would come down. If in the ocean, it would sink like a stone."

"How is it that the ship doesn't spin about anyway,

end over end, and how will you turn it?" asked Roedler.

"Good question. The ship has a small but powerful gyro, which keeps it on an even keel. When I want to turn the ship, I brake the gyro speed by means of a radio control, which causes an opposite effect on the ship until it is turned around. Then the same rockets used in going up brake its forward speed and in turn brake its falling speed when the ship begins to fall toward the earth."

Nodding briefly, Roedler jumped back to the ground and began to stalk to and fro before the truck, glancing often at the cloudless sky.

Tears gathered in Ethel's eyes. "Perhaps," she whispered to Wyatt, "When we get her down safely, he . . ." she faltered and stopped, and Wyatt squeezed her hand with an assurance he himself did not feel.

FIFTEEN minutes later, painfully tortured minutes, another message arrived. Wyatt scanned it hurriedly.

"Height 21,100 miles," he announced in low tones. "Speed, 24,900 miles per hour—Ethel, what does that come to?"

She figured swiftly, her fingers trembling so that she could hardly control them, and a sob escaped her lips as she neared the result.

"Six and nine tenths!" she choked out. "It's increasing!"

Karl Roedler staggered back, his face white, and his eyes went appealingly to Wyatt, standing like a statue atop the truck.

"The velocity at Irkutsk will tell," Wyatt said. "All we can do is wait. And if the ship does not fly off into space, it will take about six hours to complete the flight. That means the ship will be overhead in about two hours—if at all!"

Another agonizing period of waiting passed slowly by, then at last the awaited radiogram from Irkutsk arrived. Roedler himself tore it open, barked the figures up at Ethel and Wyatt.

"Height 19,200, speed 24,100 . . ." he stopped short with a gasp. "It's decreased!" he exclaimed.

In astonishment Wyatt stared down for a moment, then suddenly he crashed his fist into his palm. "Certainly!" he roared in realization of the truth. "The moon!"

"The moon?" Ethel echoed in surprise. "What has the moon got to do with it?"

"Directly overhead in Japan now," he explained swiftly. "Its attraction accounted for the increase in speed from Mt. Wilson to Tokyo, and its gravity drag is accounting for the reduction now as the ship travels away from it—in addition to reducing its height, which it had previously increased. It means the ship will complete its circuit, and won't escape into space!"

Ethel gave a low cry of relief, then her face grew tragic again. "But," she whispered with a sob, "We won't know what has happened to . . . her . . . and the animals—if they live or . . ."

"We will, in an hour," said Wyatt, turning decisively back to his instruments. "I am going to prepare to bring the ship down. Come here, Ethel, and help me with these figures. We'll be able to judge almost exactly the time it should arrive overhead."

An hour later the three were once more gathered about the truck, and this time the reporters, too, gathered about. Every soul on the field, every mechanic from the hangar, waited tensely, eyes fixed on the darkening sky above. Sunset was only an hour away.

Wyatt began adjusting dials, flinging switches. Rapidly he worked, watching reactions of spinning dials and quivering needles, with narrowed eyes. For ten feverish minutes he made hair-line adjustments. Then watching a large dial with a needle that gradually moved to zero, he plunged home a last switch, then stepped back to stare upward.

"The ship is above us," he said hoarsely.

"I don't see anything," Ethel whispered.

"No. It is too high. But in a few minutes we will see the rockets."

THEY waited, Wyatt tense, alternately eyeing his meters and the void above; Ethel anxiously cranning her neck toward the zenith; Roedler stiff, unmoving, his hands clenched as he waited with grim calm.

"There!" cried a reporter excitedly. "Is see a speck of light!"

"That's it!" shouted Wyatt, leaping toward his instruments. "She's coming down on the automatic controls."

For long minutes the red fleck above flamed, growing more visible every second until it spread a ruddy light high in the stratosphere. Then abruptly it winked out.

"Wh—what is it?" Tthel faltertd.

"Rockets have ceased," said Wyatt in clipped tones. "I'm cutting in the propeller now. It'll grip soon, when the air becomes dense enough."

For several moments there was silence. Then a thin, high, shrill scream came whistling down from the void. It grew until it became the muffled thunder of the motor in the ship's nose. Then the ship itself became visible. The drone of the propeller dropped lower in pitch.

Wyatt sprang forward, worked the manual controls on his switchboard. The fall of the ship slowed down as he revved the motors up a bit. At length the ship hovered over the field a half-mile away, then settled slowly to the ground. It remained erect, the base of its hull still glowing a dull red that faded almost abruptly.

Cutting the power on the switchboard, Wyatt hurled himself from the truck to a waiting car. Into it Ethel scrambled, as he took the driver's seat. Roedler and several mechanics leaped onto the running board, hanging tight as Wyatt sent the car careening across

the field. Behind came the rest of the mechanics, officials and reporters, on the run.

Reaching the ship, Wyatt was the first to lay hand on its door fastenings. With a wrench he tore at the nuts savagely, assisted in an instant by a mechanic. A moment later the door swung wide, and Wyatt heaved himself through the opening. Inside all was silence. A wave of stale air made him gasp for breath. Fumbling about the cramped space he discovered a limp body, dragged it to him. Laboriously he carried Rosella outside and lay her on the ground. Grasping her wrist he felt for her pulse, then uttered a shout of triumph. "She's alive!"

Swiftly he examined her for broken bones, found none.

"Not hurt, so far as I can see," he decided aloud, looking up at Ethel's anxious face. "Just unconscious from lack of oxygen. The air was almost completely vitiated. But I'm sure . . ."

Roedler advanced and stared down at the white face, taking on color now as the fresh air revived her.

"She isn't harmed?" he asked. "She'll be all right?"

Wyatt nodded dumbly, eyeing Roedler doubtfully.

"Good," said Roedler. "Your ship is a marvelous success!"

For an instant the German Fuehrer regarded the unconscious girl, a peculiar light in his eyes, then abruptly he whirled on his heel and strode swiftly away. "Come," he said to his aides. "We return to Berlin."

Behind him Ethel clasped the reviving girl to her breast and hot tears fell on the wan face.

CHAPTER V

Must Blood Flow?

"FAILURE!" Carter Wyatt groaned and buried his head in his hands. "Failure, because of money; an artificial medium of exchange, intended to aid barter! And instead it's a means of power and superiority for greedy, selfish men. No man, no matter how rich he is, will part with any of it to make colonization of the planets possible. My dreams, blasted by a few metal coins and bits of paper! I can't get anybody to finance the ships we'll need to colonize."

Wyatt's tone was bitter, defeated, and even the sudden sagging of the divan cushion beside him, and the pressure of Ethel's slim body against his as her sympathetic arm went about his drooping shoulders, failed to rouse him from his mood.

"Perhaps you want too much at one time," she suggested softly. "Progress isn't made in a day. After all, nobody's ever been to the other planets. When that has been done, there'll be many men who will finance your dream of colonizations. Remember, you've your exploration ship. It's nearly finished now—Roedler made that possible. Once you've made a trip to Mars, or Venus, and return . . ."

Wyatt lifted his head and looked at her gloomily. "That's just it," he said bitterly. "We have no exploration ship—yet. The original grant Roedler made possible is gone; used up. We still need another half million to finish it. Germany won't give any more."

Ethel stared back at him. "But . . . that's silly! It's just wasting all that has already been put into it . . ."

"There's no intention of wasting it."

"Then what . . .?"

He gripped her by the shoulders. "The money is mine—anytime I want it; but at a price!"

"Price?" Ethel's features bore puzzled lines. "What do you mean?"

Wyatt hesitated. "Do you realize how really successful the flight of our experimental rocket was? And how important it would be for a nation with—with ambitions, to have a thousand such rockets, capable of positive an accurate direction? They needn't be as complex as my rocket was. They could be built for a hundred thousand apiece; cheaper than the modern bomber. No need for insulation. Just a mere shell, loaded with explosives, disease germs, gas—"

Ethel paled. "Carter!" she cried unbelievingly. "You aren't trying to tell me . . .?"

"Yes, Ethel, I am. Germany wants the secret of those rockets for world conquest!"

FOR a long moment Ethel looked at Wyatt, then she shook her head firmly. "I don't believe it." she said with conviction. "Karl isn't a mad dictator. He's kind, righteous. He has no such dreams of conquest. I *know!*"

For a moment Wyatt was silent. Then: "You're right, Ethel; and I hoped you'd see it that way . . ."

New puzzlement leaped into her eyes. "Now I *don't* understand," she said flatly.

"Then listen." Wyatt faced her squarely. "Here is the truth. I was with Karl today, and we had a long talk. First, it's impossible to further interplanetary exploration and future colonization with the world in the state it is today. Money, greed, and human nature are against us.

"Karl has no ambitions of world rule, but he has it all figured out. With the world under one rule, the obstacles now presented would vanish. A world united under one world government could easily set a pace of interplanetary exploration that would be staggering. Dozens, not one ship, could be built. Money would lose its present status, as a hindrance, and became a true means to an end.

"In short, Karl, with my invention, can conquer the world by weight of threat alone, and in a new short years, mankind will look to the stars, united into one irresistible unit. It would be a bloodless war, comparatively . . ."

Ethel leaped to her feet with horror on her features. "Carter!" she exclaimed. "Do you know what you're

saying? Do you actually believe . . .? Have you lost your mind!"

Frowning Wyatt stood up also, faced her. She went on.

"You men can be *such* fools! Do you think even one little nation, much less the whole world, would be impressed by threats, and give up its independence to Germany? Karl is a convincing talker, I know, and I suspect he means well, but he's all wrong. There wouldn't be a bloodless war; it would be a horrible conflict. Civilization might be destroyed. You've got to get that thought out of your head this instant!"

Wyatt's face took on a stubborn look.

"I *can't* give up my ships," he said doggedly. "And I've exhausted every other means. The way you paint the picture is the way a Calamity Jane would paint it. What nation would dare resist with a hundred rockets hovering over its great cities? They *couldn't* resist. And there'd be no war. War under those terms would be ridiculous."

"Would *you* give up your home, your happiness, everything you've worked for, your security, your country, just because of a threat." asked Ethel directly.

He considered. "Certainly not—if it meant *that,*" he said suddenly. "But I would, if I realized I was only giving up temporarily, and that after a few months adjustment, a new, more efficient world would come into being, with benefits greatly increased, and a way open for a crowded people to expand to other worlds."

"*You* are convinced of that," said Ethel. "But can you convince those other nations; those other millions of people? Can you even convince me?"

He smiled. "Convince you?" He advanced, took her in his arms, and bent to kiss her. But her hand intervened between their lips and she pushed his head gently back. "Carter." she said, her eyes somber, purpose-filled. "I promise you, I'll hate you if you are fool enough to believe in this crazy plan, or if you even think of giving Germany your secret. I'll never marry the man who gives his genius to the making of bombs for the killing of innocent people!"

There was a sudden strange look in Wyatt's eyes as he released her and stepped back. "You really mean that, don't you?" he asked in low tones.

She nodded, slowly, surely. "Yes," she said. "Even if you never finish the first ship; if your dreams, proud as I am of them, never come true."

For a long moment Wyatt stood regarding her, then he seized her to him and kissed her lips almost savagely. Abruptly he released her, turned, and almost ran from the room.

Bewildered, Ethel stared after him, then unaccountably she began to tremble.

"Oh God," she breathed. "What is he going to do? —what have *I* done!" Abruptly she sank to the floor and her slim shoulders shook with sobs.

THE immense clamor and bedlam of the giant Krupp Works beat on Wyatt's consciousness like a maze of trip-hammers as he strode down a long aisle between glowing forges, thumping presses, and sweating workmen whose naked shoulders and arms gleamed redly in the glare from the rumbling blast furnaces lining one wall. He walked swiftly through the entire building, changing the directness of his progress only once to avoid the slow forward sweep of a giant metal hook and chain dangling from an overhead crane.

Mechanically he waved a hand in response to the smile and greeting from the crane operator, high above, then strode on into the contrasting quiet of an equally large and adjoining building. Here he paused, to view the eighty-foot cylinder of gleaming metal lying at full length on its cradle of T-irons and I-beams.

It was an imposing thing, suggestive of enormous possibilities and speaking eloquently of the mechanical marvels that had gone into its construction.

There were no workmen busy about it, as there had been the day before. The entire shop was deserted, except for two soldiers standing at the open port of the rocket ship. Wyatt advanced.

From the port the figure of Karl Roedler stepped, a reflective look on his face. He saw Wyatt instantly, placed a foot on an I-beam, stepped to another, and leaped to the floor.

"You've decided?" he asked quietly, dismissing the two soldiers, who retired to the red-limned doorway of the connecting plant.

Wyatt stopped before him and looked at him steadily for a long moment before he replied.

"Yes," he nodded at last. "I have my mind made up. But—"

"But what?"

"I want to exact a promise from you first, then make a gentlemen's agreement between us."

"I don't exactly understand—"

"Well, first, I want you to promise that you'll keep this matter absolutely secret from Ethel. Even that the ship is being finished. I'll go to America for a month, ostensibly on business, which will give you time to get the ship finished. Then I'll come back. But Ethel must know nothing about it—the ship, I mean."

"I see," Roedler nodded understanding. "You've told her of my request for the secret, and of our plan to remake the political world so that our dreams can come true . . . "

"Yes," Wyatt hesitated. "I told her—"

"And she said she wouldn't have it."

"You've hit it. Said she'd never marry me, if my secret went to the making of bombs to kill innocent people."

Roedler spoke again. "And she said I was a mad dictator—like . . ."

Wyatt sprang forward feelingly, gripped Roedler's shoulders with his hands, tightly. "No!" he exclaimed. "She didn't! She said she didn't believe it, at first. And then she said neither of us knew what

we were talking about—that horrible war would result."

"It *might*," Roedler admitted calmly. "Not likely, with such a potent threat, but possible."

Wyatt frowned. His hands dropped to his sides. "Yes," he said, "it might."

"But without a new system interplanetary travel and colonization of new worlds won't ever come about."

Wyatt's shoulders squared. "No," he agreed. "It wouldn't. And that brings me to our gentlemen's agreement. Karl, I'll give you the secret of the rockets when the ship is completed. I want you to agree to wait until the ship has gone . . ."

"*Gone!* interrupted Roedler.

"Yes. When I come back from America, to announce my further failure to get funds to finish the ship, you will greet me, and Ethel, with the news that you've had the ship finished, during my trip to America, without obligation. Then we'll take off, Ethel and I, and our crew, on the first exploration trip. Since this will take some three years, the war, if war *does* result, can be over, and we can begin interplanetary travel and colonization on the basis of our findings."

"You mean—" demanded Roedler, "You mean you —" he was unable to finish his question.

Wyatt flushed. "Need she ever know?" he exclaimed hoarsely, defensively. "I tell you, Karl, I love her too much to give her up, and at the same time, I won't give up my ships, and all they mean to civilization, to man. And if there is no war, and a better world exists when we return, *without* the destructive war she fears, how can she hold it against us?"

There was an odd light in Roedler's eyes, but he answered with a shrug of tacit agreement. "No," he admitted. "I don't suppose she could."

"Then," said Wyatt, the red stain still flooding his neck, "I agree to give you the plans to my rockets, in return for completion of this ship, under complete secrecy, and the plan I have outlined."

He extended a hand.

Roedler shook it calmly. "Agreed," he said.

Abruptly Wyatt wheeled and strode away. Roedler watched him go, a frown of concentration on his face. Then he turned to stare up at the gleaming bulk of the space ship. The frown deepened, his lips drew tight, forming a grim, set line.

CHAPTER VI

The Space Ship Is Finished

"LOOK, Rosella. There she is!" exclaimed Wyatt, grasping the arm of the blonde girl standing besides him at the ship rail. He pointed down at the dock slipping slowly past as the ship warped in under the guidance of the tugs. "I'll be glad to see her again, after being away for a month."

"So will I." laughted Rosella. "After roaming around the world for the past three months, I'm tickled at the prospect of spending a few weeks with you and Ethel. I'm actually travel-weary. You can't know how I appreciate you looking me up and inviting me. It's been rather lonesome . . ." she broke off.

Wyatt glanced at her, then began speaking again, hurriedly. "We've missed you too," he said. "Now that you're here, we'll have some great times together. We'll paint the town red . . . " he broke off, waved vigorously down at the dock. "She sees us!" he exclaimed. "And just look at the expression on her face, will you? She's recognized you."

He grinned down at Ethel and blew her a kiss. She returned it and he dragged Rosella away from the rail. "Let's get to the gangplank and get off this boat," he said. "I've had enough of ships for awhile."

Twenty minutes later, with the red tape of landing and custom inspection gone through, Wyatt clasped Ethel to him and kissed her. Then he turned to Rosella. "I met her on shipboard," he said hurriedly. "Persuaded her to stay here with us for a couple weeks. She's been traveling around enough lately. Time she ate a little home cooking . . ."

He paused, eyeing Rosella, who seemed about to say something then subsided, and instead, greeted Ethel with a fond embrace. Wyatt breathed easier.

Ethel laid a hand on his arm. "Any . . . luck?" she asked hesitantly.

He contrived to make his face fall. "No," he said soberly. With an apparent effort he brightened, gripped both girls by the arm and led the way toward a cab. "But never mind that. Right now we are going to your apartment and have a little old-fashioned gabfest—and a meal. I'm starved!"

In the cab, bound for Ethel's apartment, she suddenly delved down into her purse and extracted a telegram.

"This came for you just before I left to come down to the dock," she explained, handing it to him.

Wyatt tore it open, glanced at the contents, then passed it calmly to her. "Read it," he said. "It looks like we've got one real friend, anyhow."

Ethel glanced at the telegram and a cry escaped her lips. "The space ship!" she burst out "Karl has had it finished—the government put up the money." She turned to Wyatt. "But I thought . . ."

"Karl must have persuaded them," he said hastily, nodding covertly at Rosella. Ethel subsided suddenly. He pulled his watch from his pocket and glanced at it. "Let's hurry with our dinner and then go out to the field to see it," he suggested.

"Tonight?" asked Ethel in surprise.

"Sure, why not? Now that I know it's finished—" he gripped her hand. "You know how much it means to me, to have my dreams begin to come true," he said earnestly. "I *must* see it! Just think, the first space ship is ready for a voyage to the planets!"

Rosella leaned forward, her eyes shining now too.

"Of course, Ethel. We simply must go out there right away. I'm as thrilled as Carter is, and I'd love to see the ship."

Ethel laughed. "No more than I," she admitted. "But I can't help thinking . . ."

Wyatt called to the cab driver to stop. "You girls go on ahead and fix up the dinner," he urged. "I'll pick up something a little special, and we'll make it a celebration." He leaped from the cab before they could protest, and with a grin shut the door and walked rapidly toward the corner where there was a tiny liquor store. He waved a hand blithely as the cab rounded the corner ahead of him, continuing toward the apartment.

But once inside the store his blitheness vanished. He stepped into a phone booth and dialed a number that was not listed in the phone book.

DARKNESS lay over the experimental field, except for an area surrounded by floodlights and closely guarded by a tall board fence some two hundred yards on a side. But even over the top of this fence could be seen the gleaming tip of a metal object beyond. Like a blunt nosed projectile of vast size it was, shining as though made of burnished silver in the glare of the floodlights.

Wyatt grasped the arms of both girls and piloted then over the rough terrain toward the gate. Here they were met by several soldiers, standing guard.

"Herr Wyatt?" asked one of them.

"Yes," answered Wyatt, presenting a card.

The guard inspected it, turned and unlocked the gate. As he swung it wide, Ethel spoke. "They expected us," she said in puzzled tones. "How . . . "

Wyatt laughed. "Of course. I called up. You don't think we could get in otherwise, do you? This field is swarming with soldiers. There's a real secret inside that fence, young lady."

They passed through the gate, and suddenly halted as they saw the space ship standing before them, in the center of a large cleared space enclosed by the tall fence.

"It's *beautiful!*" gasped Ethel after a startled moment.

"It . . . it is . . ." said Wyatt, his voice suddenly becoming halting and choked up.

"Oh, hurry," Ethel went on, beginning to walk rapidly forward. "I'm simply dying to see the inside."

Rosella darted forward too, and Wyatt follow behind. His face was suddenly sober and serious. Once be glanced behind him at the gate, which was once more closed. Then squaring his shoulders, he strode forward again.

For an instant they stood beside the looming hull, gazing up in admiration.

"We'll have to climb that ladder, to get in," Wyatt indicated a recessed metal ladder set into the hull, for a distance of thirty feet up from the base. "I'll go up first and open the lock. Then you two come up."

He clambered swiftly up the metal rungs, manipulated the controls of the air-lock. It swung inward, and he stepped inside. "Come on," he called down. "And watch your step."

In a moment all three were inside the lock and Wyatt closed the outer lock. "Can't open the inner when the outer is open," he explained.

Swiftly he opened the inner lock and stepped aside, revealing a tiny control room. Ethel stepped forward, followed by Rosella, and in a moment all three stood inside the ship.

"Hello, Carter," came a calm voice from beside them.

WYATT whirled. "Karl!" he uttered dumbfounded. "I didn't expect to find you here . . . now!"

Roedler nodded. His face was impassive. "No, I don't suppose you did. But I thought I'd surprise you." He turned to Ethel and Rosella. "I'm glad to see you both," he said. "How do you like the ship?" He waved a hand around.

Silence fell on the group; an awkward silence that threatened to become more than awkward. Rosella stood stiffly, her face gone deadly white.

Wyatt broke the tenseness of the silence. He spoke evenly.

"I think I know why you came ahead of schedule, Karl," he said, "and I can't say I blame you, knowing what you are thinking. But," he shrugged, "since you're here I might as well give you . . . what I have for you."

He withdrew a sheaf of papers from his pocket and handed them to Roedler.

"You completed your half of the bargain," he said. "Now I complete mine."

Roedler accepted the papers without a word and stuffed them into his pocket. "Thanks," he said briefly.

He turned to Ethel. "You girls haven't told me how you like the ship, now it's finished," he suggested. "Personally, I think it's a magnificent piece of engineering. Carter, and Germany—" he glanced a brief instant at Wyatt "—can well be proud of it. And it's ready to go, too. Fueled and provisioned for a trip to . . ."

Ethel turned abruptly to Wyatt. On her face was a determined, puzzled look. "Carter," she said, "I don't understand what all this is about, at all. And I want to know. Something is wrong here."

For a long instant Wyatt was silent, then he glanced at Roedler. "I think I had better let Karl tell you," he said evenly. "That's what he came here to do."

Ethel turned to Roedler, her surprise complete. "Karl?" she echoed blankly.

Roedler looked oddly at Wyatt, then nodded briefly. "Yes, Carter," he said addressing Wyatt, but shifting his gaze to Ethel. "I did come here to tell her. I couldn't do otherwise. I made a bargain, and I kept it, but now my part, and yours, is carried out, and I am no longer bound.

"You see, Ethel, this ship is only possible because of one fact. Germany, and I, wanted the secret of the gravity-reversal. With rockets such as the experimental rocket, Germany could conquer the world, without a war. The threat would be too vast to resist. I could set up a world state where Carter's great obstacle to completion of his, of *our,* dream, the financial system, would vanish . . ."

Ethel went pale. "And you offered to finish this ship in return for those plans—you now *have* the secret . . .?"

Roedler nodded. "Yes," he said lowly. "I thought you ought to know—"

Ethel's shoulders drooped visibly and she went ghastly.

"Karl!" came Rosella's horrified voice. "What have you done . . .?"

Roedler turned slowly toward her. "It was the only *honest* thing for me to do," he said hoarsely. "Would you have me do otherwise?"

Rosella stared at him, and for a moment the quartet made a study in frozen motion in the tiny control room. Abruptly a sob came from Ethel's throat, and she flung herself limply into a cushioned seat and buried her head in her hands.

Rosella moved to go to her, but Roedler intervened. "No," he said gently. "There's nothing *we* can do . . ."

FOR a long instant there was silence as Roedler and Wyatt faced each other, then Roedler turned toward the port, his face stony. "Come, Rosella," he said heavily. He halted in surprise as he saw that the port was closed.

Behind him Wyatt closed his hand down on a lever, at the same time whipping a piece of cloth from his pocket and holding it over his mouth and nostrils.

A thing, hissing sound became audible. Roedler spun around abruptly, his features drawing tight with alarm.

Rosella uttered a little cry, then choked. She slid slowly floorward. Two faltering steps Roedler took, then he dropped in his tracks. Slowly he slumped to the floor, his eyes on Wyatt incredulously.

"Gas!" he mumbled with an effort. "Carter—what —what are you doing . . . ? You're mad—" He sighed and slipped into unconsciousness.

Ethel, still slumped in the cushioned chair, swayed and Wyatt leaped forward to catch her before she fell. Lifting her in one arm he placed her gently in one of the acceleration hammocks. This done, he removed a gas mask from a cabinet, held his breath while he slipped it on.

Then he moved swiftly.

Stepping to the microphone on the control panel, he switched it on. Outside, his voice roared through the night, and startled soldiers leaped erect in alarm.

"Clear away from the ship!" he commanded. "Clear away! We're taking off and the rocket blasts will be dangerous. Clear away!"

He switched on the giant propeller high in the nose of the ship. A muted thunder came to his ears. A blast of air swept down from the whirling propeller. As he increased its speed judiciously, the soldiers stumbled away from the circle of lights about the ship, eyes blinded with swirling dust.

Wyatt grinned tightly as he waited for them to make their difficult way out of range of the blast from the propeller, then when all were clear, he depressed the levers in determined force. The muted roar rose to a shriek and the ship began to rise slowly from its position. Cautiously he turned on the rocket blasts. Flame lit the night in macabre red, outglaring the floodlights. The metal shell rose more swiftly, leaping aloft with headlong acceleration as each second passed.

In ten minutes the force of acceleration made his legs tremble, pressed him to the floor. He dropped back to relax in the cushions of the control seat, his hands propped on the controls. Five minutes later he cut out the propeller, now losing its bite on the atmosphere, whirling futilely in the near vacuum of the upper stratosphere. The rockets thundered at increased power, then they too became silent, except for a dull rumble audible through the metal framework of the ship.

Beyond the ports, the stars grew infinitely brighter than Wyatt had ever seen them before, from Earth, and abruptly the flaming disc of the sun swept into view as the ship plunged out of the earth-shadow.

Then, and only then, did Wyatt depress the air-purifier lever, turn off the flow of gas into the control room. Minutes later, when the air had cleared, he removed his mask and bent to the exacting task of correcting the ship's course. When he had finished, he set the rocket controls to automatic (which would cut them out when the velocity of escape was reached) and sat back to wait.

TWO hours later Karl Roedler stirred in his hammock, moaned, and after a brief moment struggled dazedly to a sitting position. For an instant he stared about uncomprehendingly, then his gaze fell upon the ports, and the void beyond them.

"We're flying!" he exclaimed in sudden shock. *"We're off the Earth!"*

He leaped hastily from the hammock, knees buckling under the effort of acceleration, and faced Wyatt, who sat calmly in his seat, eying Roedler with an odd expression of speculation in his eyes.

"What . . . how . . .?" began Roedler, his eyes taking on a menacing gleam of anger as he began to comprehend the significance of the situation.

Wyatt spoke slowly. "So you thought I was an unprincipled rogue, when I agreed to exchange my secret for the completion of this ship, eh, Karl?"

Roedler eyed him blankly. "What do you mean?" His bewilderment grew, submerging the imminent anger for the moment. "What's all this about?" He waved a hand at the void outside.

Wyatt stood up and faced the German ruler. "Just this, Karl," he said seriously. "You and Rosella, and Ethel and I, are going to Venus."

Roedler stared. "Venus!" he exclaimed, aghast.

"I planned it all along," Wyatt went on. "I promised to give you the plans for the rockets, in return for the completion of the ship. I kept my promise. But I never intended that they should be used for war. War is a holocaust, which once started, commands its own unpredictable destiny. No one man, nor one nation, is strong enough to control its unleashed fury. If you'll just sit down and think, you'll realize it's true; just as I realized it when Ethel told me how foolish we were.

"The nations of earth are outgrowing war. Let progress continue for a few more decades, and there will never need to be any more wars."

"But your ideals!" protested Roedler hoarsely. "Your dreams—my dreams too—of space travel and colonization for Earth's crowded nations . . .?"

"That is why I took the great gamble of presuming to take such enormous liberties with your life and your future," Wyatt said slowly. "I knew you wanted interplanetary travel as much as I. We are the first, and we will succeed. But, if I have presumed too much, there is still return for you, to Earth, by parachute, and space suit . . ."

"What about your statement of a moment ago, that your secret would never be used for war?" demanded Roedler in baffled tones. "It isn't consistent with your escape by parachute plan."

"Would you use it, knowing the enemy had it too?" asked Wyatt significantly.

"What do you mean?"

"Just this. Even were you to return to Earth, the papers in your pocket would be useless in waging the kind of war you wanted to wage. The secret is the property also of the American Scientific Association, and would be used to resist you. Its value would be gone. You couldn't win."

"You gave the secret to them!" Roedler uttered in astounded tones. "Why?"

Wyatt smiled. "Because the scientists of America are business men—" he said significantly.

"Business men—?"

"Yes. With the last Dictator threat of war gone (you were that, you know), they'll find a way to put the secret of my ship to practical application—to interplanetary travel and exploration, just as I intended to do. What one scientist could not do, many hundreds will accomplish, given time. I know they will."

A MOAN came from one of the acceleration hammocks.

Roedler tensed at the sound.

Wyatt glanced at Rosella's reviving face. He eyed Roedler. "Go to her," he said suddenly. "There is no longer anything to keep you apart."

But Roedler stood rooted to the spot, his face a study in conflicting emotions.

For a long instant Wyatt eyed him steadily, then he turned to the hammock that held Ethel's limp form. Worriedly he crossed to it, stared down at her features. With blank surprise he saw that her eyes were wide. Obviously she had been conscious for many minutes.

"You . . . heard?" he began hesitantly.

Her head turned to the wall. "Don't speak to me," she whispered lowly. "You have played God once too often. And you deceived me."

"Ethel!" There was anguish in his face as he gripped her shoulders and forced her to face him, "I *couldn't* tell anyone—even you; I couldn't risk failure. If I lost this last gamble for the success of my dreams, it meant losing you too, and I couldn't bear that . . ."

Her eyes, boring into his, halted his hoarse whisper.

"Telling me might have prevented making another horrible mistake," she accused.

"Mistake . . .?" His voice was barely audible.

"Yes. Once before you thought you could bring Karl and Rosella together, and you nearly caused her death, to say nothing of breaking her heart. Now you've made an even worse mistake. What right have you to play with human beings so cruelly? Do you think Karl is the kind of man who'll be forced into something like this?"

Wyatt glanced over his shoulder, then down once more at Ethel's accusing face. Slowly he lifted her to a sitting position in the hammock.

"Sometimes," he said, "force is a *good* weapon. Look," he whispered. "Over my shoulder. Does that look like a mistake?"

She looked and for an instant a glad light gleamed in her eyes, then it vanished, as though concealed by a purposeful curtain. "No," she admitted. "It doesn't, does it?"

"Then I'm forgiven?" he asked hopefully.

She averted her head. "Do you think you can force me to?" she asked.

A grin grew slowly on his lips. I *know* I can!" he breathed. "I know I can!"

THE END

PHIL NOWLAN RETURNS!

THE FAMED CREATOR OF BUCK ROGERS COMES BACK TO SCIENCE FICTION

He has written a new novel of Mars that will thrill you. Remember "Armageddon" and "The Airlords of Han"? They were the classics that led to Buck Rogers' rise to fame. This new story is not about Buck Rogers, but a real, honest-to-gosh masterpiece of straight science fiction, told in the masterful style of Phil Nowlan of Amazing Stories' fame.

Watch for him in a coming issue!

If the Earth's MAGNETIC FIELD Failed

By LYLE D. GUNN

Here is a fantastic story of what could happen to the Earth if the sun developed an unusual rash of sunspots on its face

THE earth is a magnet. Like any other magnet, it is surrounded by a magnetic field. No more than a compass is needed to demonstrate the lines of force running between its two poles.

What would happen if that magnetic field failed?

The course of evolution would be turned back two hundred million years! Great thunder-lizards would walk the earth again. Flying reptiles would wing their huge bodies over towering fern fronds. Gigantic insects would fight for supremacy in the weird light of a world lashed by titanic forces.

And mankind, unless it fled from those forces, would become a new race of nightmare monsters!

It seems impossible, of course, that anywhere in the universe there exists a single power capable of producing those cataclysmic effects. Yet it is with us all the time and all around us—in the eight hundred million billion cosmic rays which strike the earth every second with a thousand times the voltage of lightning!

Why don't we suffer any ill effects from that merciless bombardment now? It amounts to about thirty shots at every human body each second. Considering that there are some thousand trillion trillion atoms in the average body, it seems that there is no dearth of targets. Some damage should be done.

But, though we seem solid enough, those atoms are as far apart as island universes! Even their planetary electrons are separated from each other and the central nucleus by distances proportionally as great as those between members of the solar system. The chances of a direct hit are infinitesimal. The projectiles go straight through us without touching us!

A few, perhaps, do hit. It is believed that some freaks—five legged calves, ten-fingered children—are the result of damage done to the parental germ plasm by cosmic rays. Mutations are produced by changes in the genes, the carriers of heredity. In this way, experimenting on flies with X-rays, scientists have created hundreds of new species and thousands of freakish variations. But such cases would be as nothing compared to what we would have if the earth's magnetic field were to weaken or fail.

That magnetic field is our protection against the unbridled forces of the universe! It acts as a shield, repulsing by far the greater part of the cosmic radiation raining in on the earth from some unknown source in space. Only cosmic rays of energy greater than 200,000,000 electron volts are able to penetrate it.

The amount that gets through may seem, from the figure given, a heavy deluge. But if the potential of the field were to drop, if the shield let in the far greater quantity of lower energy rays, a veritable cloudburst of malignant radiation would descend upon us!

No longer will it be a matter of random hits. That solid blanket will miss nothing!

It will recreate the conditions controlling evolution two hundred million years ago, make over every life form developed since! Lion-sized ants, the highest order of modern insects, will vie with Tyrannosaurus Rex, king of the dinosaurs. Man, changed unrecognizably, will no longer be Ruler of Earth!

And the earth itself will be strangely altered.

To see how these stupendous results would be produced, directly or indirectly, by the all-changing radiation from space, we need note only a few simple facts concerning cosmic rays. They are, to begin with, electrically charged particles of extremely high energy. Even the slowest of them, once they pierce the earth's magnetic shield, are able to smash other particles out of atoms of the air with such force that those in turn are able to disrupt still other atoms!

It is this 'shower' effect that makes cosmic rays capable of devastating, wide-spread influence. A single cosmic ray, before the series of collisions is ended, can produce a burst of fifty thousand other particles! These include, as a result of various interactions, many different kinds of particles. For the moment we are interested in only one kind—high-energy electrons.

These are the same light-weight, negative particles which in laboratories are trained on various elements to cause them to emit neutrons. The latter, neutral particles two thousand times as heavy as electrons, are capable of making stable elements become radioactive!

We are now near the end of the chain which leads from cosmic rays to the second Age of Reptiles. Remember that if the earth's magnetic shield weakened ever so slightly, an immensely increased influx of cosmic radiation would cause this whole process to be performed on a stupendous scale. The earth would be covered with radioactive substances!

Among them would be K_{40}, the radioactive isotope, or variety, of potassum.

Potassium affects growth, plays a vital role in important life processes. It enters into the structure of all animals and plants. Two hundred million years ago its K_{40} isotope was prevalent in the soil, though all has long since broken down into stable form. And that radioactive potassium, entering into the life forms

of that distant time, was responsible for their remarkable mutations and rampant growths!

If the magnetic shield failed, they would return.

But long before these indirect consequences manifested themselves, we would have swifter evidence of the disastrous effects of cosmic radiation. Rank vegetation would push up through every crack, tearing sidewalks and streets apart. It would reach up avidly and take hold in every crevice of buildings. Cities would become steaming, impassable jungles!

Swiftly, then, will the damage be done to men. Even as they scurry in panic at the first announcement of the catastrophe which Geiger counters, instruments for measuring quantity and intensity of cosmic rays, have just discovered, the insidious malignant changes will be working in their bodies!

Of those changes only this need be said: *No two men will be alike—and none will any longer be a human being.*

Is there no escape? Perhaps—but only perhaps.

Mankind might escape, if awakened to the danger early enough, by burrowing deep into the earth. Cosmic rays can penetrate thirty feet of lead, more than a hundred feet of solid rock! Eventually, however, their force is spent. Beneath millions of tons of rock, in lead-lined chambers of perpetual night, man might find sanctuary.

There he might work out a new destiny. But the struggle would be bitter. Euthanasia, or mercy killing, would have to be practiced to eliminate the worst of the human monsters. Others would have to be sterilized so that only the most normal would mate and gradually restore the purity of the race.

Yet out of all that tragedy, and in overcoming the tremendous handicaps of the new existence, man might rise to greater heights. *If given the chance.*

For the earth itself may be destroyed!

With protons, cores of hydrogen atoms, physicists have finally succeeded in completely smashing atoms of other elements. Rather, those elements are split into equal portions of elements of lower weight, and the remaining mass is released explosively. All sorts of powerful secondary emanations are included in those violent explosions whose energy greatly exceeds the 800,000 to 1,700,000 volts of the original splitter protons produced in the cyclotron.

And in the bursts of particles created by cosmic rays are protons five to ten times that powerful!

The earth will then be swept by a tornado of countless billions of atomic explosions. In the weird light of their secondary emanations it will writhe and shudder. Great fissures will open—perhaps reaching down into the bowels of the earth and exposing man in his last refuge!

Nor will the destruction stop there. In the splitting of atoms with protons, high-speed neutrons are emitted. And they can destroy other atoms!

The process will continue until the world is utterly annihilated.

There is the prospect—unpleasantly well-founded on known facts. But what is the possibility of it all coming to pass?

Cosmic rays were formerly thought to have originated as a by-product of the primeval explosion of a single mass of matter. From this, according to proponents of the expanding universe theory of Lemaitre, all stellar bodies were formed, being hurled away from that central point in remote space. But recent tests show that cosmic rays come from closer to home!

If they originated outside the Milky Way, the galaxy of stars to which our sun belongs, certain variations in their intensity should be found. When the sun and planets are on the forward side of the great disc-shaped rotating wheel of the Milky Way, more cosmic rays should strike us. Just as one riding on a merry-go-round in the rain feels more drops on his face than on the back of his neck!

This variation in cosmic rays has not been found. Therefore they must originate as free particles somewhere within our own galaxy. Perhaps they are stepped up to cosmic energy by the magnetic fields of double stars, in the same way that man-made cyclotrons speed up particles by repeated electrical 'pushes.'

But only one *definite* fact can be stated about cosmic rays. Whatever their origin or cause, they are always with us!

Can the same be said for our shield against them?

Much more is known about the earth's magnetic field—and it is not reassuring! Studies of the occurrences of magnetic storms, disturbances in the earth's magnetic field which affect radio transmission and operation of telephone and telegraph lines, show that they are related to the appearance of sunspots. Those atomic storms in the sun are responsible for its own magnetic field. And the stronger the solar field, the weaker becomes the earth's!

At a time of unusual sunspot activity, the earth's shield against cosmic rays could fail.

Sunspots, in number and intensity, follow an involved series of cycles. First, there is one in which highs and lows return approximately every eleven years. But variations in their regularity are caused by another, independent cycle of more than a century's duration. And when the highs of both cycles match, there *is* a period of unusual sunspot activity!

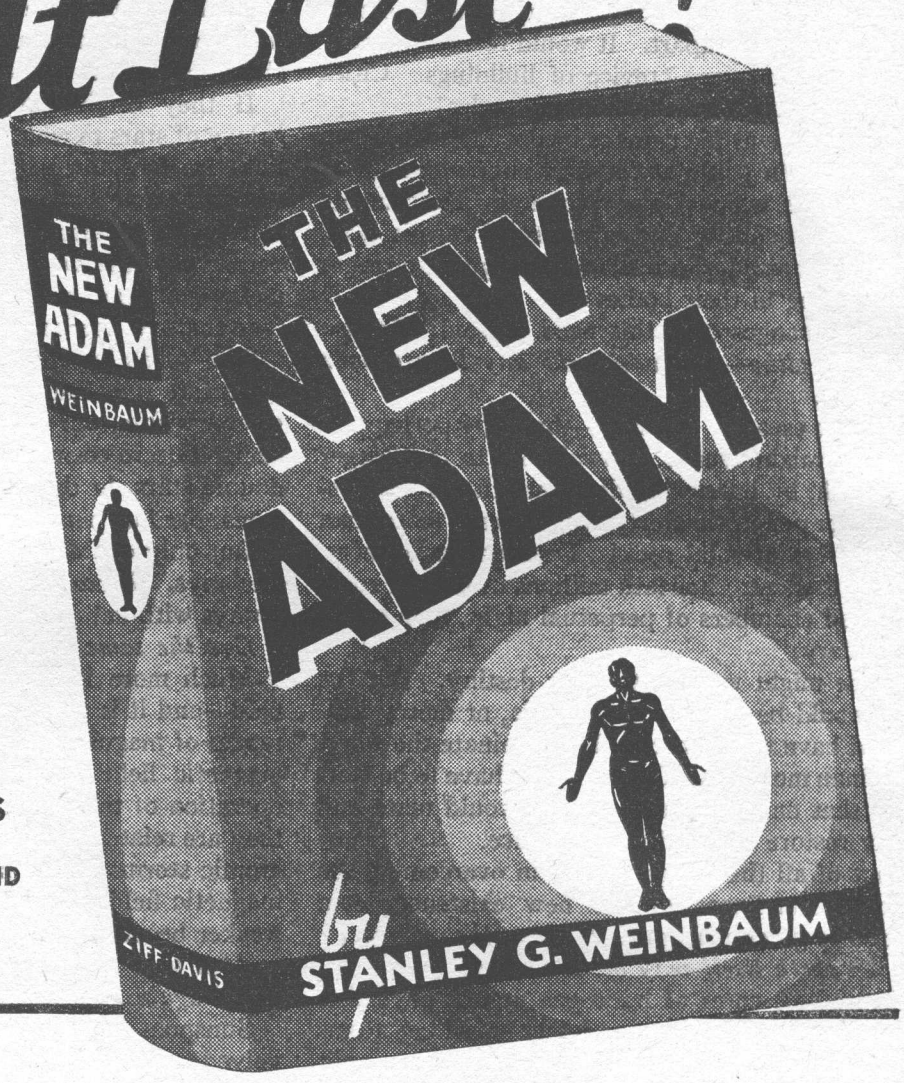
Powerful enough to affect the earth's magnetic field? There is at least one more cycle of sunspots, a super-cycle with a period greater than a millenium. When the highs of *all* coincide, when all cycles are pulling together—sunspot activity could be powerful enough to *destroy* our protective shield!

Data has not been kept long enough to tell how frequent are such deadly conjunctions. Possibly never before in the history of the world has the absolute maximum of sunspot activity been reached. But we are now near the high of an eleven year cycle, approaching the high of a hundred year period.

The peak of a greater cycle may *also* be at hand!

We may be at the threshold of the ultimate catastrophe . . . if the earth's magnetic field fails . . .!

HERE at Last!



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»»» Introducing «««

THE AUTHOR

HENRY GADE
Author of
PIONEER—1957!

THIS business of writing an autobiographical sketch for the readers of FANTASTIC ADVENTURES is a bit unusual. Outside of the fact that "Pioneer—1957!" is my first attempt in this field, and that no one has ever asked about me before, the odds are all in favor of the result being a complete nil.

To get to the elementary facts, I'm 26 years old, and I've been writing fiction exactly six of those years. I'm of average height, athletic build, and devilishly handsome. Quite a smash hit with the ladies, you know! Brown hair with a bit of a wave, full set of teeth, and a pleasing smile. I owe it all to my mother.

You gather from all that, I presume, that Henry has been blessed with a lot of stuff. Or—form your own opinion! I've always said, if I don't blow my own horn, who in tarnation will? So, if you're using salt on this, you should!

I began writing articles, and succeeded in having quite a few published; to my delight at seeing my name in print, and my chagrin at donating my gift of art to charitable purposes! After which I turned to fiction, and the only difference was that I had no opportunity for delight in basking in the limelight.

Eventually, however, I caught an editor off guard, and the result was a bit of a—er—well after all, a good many famous writers got their start in the sex field, didn't they? (Yes, my saucy stories were the result of experi—I mean imagination.)

But seriously, that's how I got into the pulp fiction game. And, although I'm still starving at it, and probably will continue to do so, I occasionally get one into print. This story is one example of that, plus some much appreciated coaching on the part of FANTASTIC's editor. Which means, simply, dear reader, that the old Simon Legree made me write it over so many times I hate the sight of it—and here and now, I won't read it in the magazine! (I buy two copies, one of which I keep free of thumbprints).

HENRY GADE

Writing is a great game. Easy, and lucrative! Takes me only about three months to write a yarn, and check usually grosses so much a word, and that's a lot of gross—er—exaggeration. In fact, in the accompanying photo, you will observe me wearing a suit. I bought that at the time of my last sale, and I still remember the darn thing.

I wonder, is this an autobiography? I really don't know how to write one. And the editor said about 700 words. Well, how about my youth? I spent most of it playing ball and hookey. Part of it I spent in a CCC camp, where I edited the camp paper. Editorial aspirations led me on, and my reputation as a writer grew. Became a Winchell of the forest glades, and dug up a lot of gossip. For which I was nearly plowed under. Most of it was fiction, and certain individuals didn't think the notice "Any similarity to persons living or dead is purely accidental . . ." applied to the items connected with their names, which, purely accidentally, were not misspelled. But what can you expect in a CCC camp?

Now, in between writing spasms, I take cars from people who used to own them, and drive them to other people who will drive them until they don't own them. This also pays me a lot—I enjoy the ride.

As for the story you are about to read (I hope) in this issue, I got the idea from Hitler, which is the only thing he ever gave me. I figured that anyone who invented a space ship would have a—pardon me—of a job trying to get some well-meaning banker or philanthropist to put up the necessary millions to pour out into space, and get nothing back on the investment. So who would put up the dough? The name Hitler suggested itself (probably because of a mental synapse caused by constant repetition—that's all you see in the papers) and I figured he'd put up the money for a nice destructive rocket. And I also figured he'd bluff with it. But being a generous fellow, I changed his name to Roedler and made him a nice guy. He almost ran away with the story. And I nearly made a heel out of my hero. But that's how I write. I don't know where I'm going, and sometimes I wind up in such a mess I throw the manuscript away in disgust. But occasionally I figure a way out, and then I have a story, even if it is a bit scrambled as to original intent.

Roedler isn't the only character in the story who is taken from real life, and the two girls were suggested by a pair I know personally, and I've taken great pains to depict them as they are not. You see, they don't appreciate what a good guy I am, and don't seem to have an eye for beauty. So I immortalized them.

I won't say any more about the story, because I can see the readers' column right now, and why heap coals on the fire? Anyway, it's time to quit this, and go out to get another suit. I'll be hanged if I stay in the house another winter!—*Henry Gade.*

THORNTON AYRE
Author of
LUNAR INTRIGUE

HOW might a jailbreak of the distant future be accomplished? This was the thought that set me working on the plot of "Lunar Intrigue," in which I have endeavored to depict the various scientific resources at the disposal of future criminals.

They will use remote control, four dimensional transit, carry space suits as easily as overcoats, overcome conditions of supreme difficulty by likewise supreme weapons. The jails of the future will be no tougher for the convict to crack than today for he will have other methods at his disposal than the criminal of today.

The moon, granting (as I have done in the story) that it has air on a small proportion of its other side, might well become a lunar penitentiary in future, whither the racketeers, murderers, and enemies of society will go. Nor is it too so unlikely that some of them might attempt the audacious control of Earth by paralysis of electric power through the medium of remote control.

I believe—in the future as today—that men will be little different in basic human reactions. There will still be men who are just a

bit cleverer than the criminal, still be men who will risk their lives to expose a dangerous plot.

I do not claim a vast originality for this story. I offer it simply as a possible slant on future crime and criminals. As such, maybe its occasional thrilling moments and the gradual movement to a *denoument* will be interesting.

If such is indeed the case, I shall be amply repaid.—*Thornton Ayre.*

MAURICE DUCLOS
Author of
INTO ANOTHER DIMENSION

THE so-called Fiitzgerald Contraction Theory has always interested me. While there is no actual proof that a moving object shortens in the direction of its travel, the theory offers plenty of material for speculation. Just *what* would become of an object that exceeded the speed of light? At that velocity the object's length would theoretically be zero, and of course to us it would cease to exist. But matter is indestructible; it would have to be somewhere—well, you can easily see how this line of thought resulted in the story "INTO ANOTHER DIMENSION."

Of course the idea of using the Fitzgerald Contraction to transport characters to another plain of existence is not new. Many a staunch hero has passed the fatal speed of light in his trusty space ship—so many, in fact, that I thought a different slant on the theory wouldn't be amiss.

I have often speculated on what position mankind would occupy today if a mentally superior race of beings had evolved simultaneously with us on the Earth; a race of huge insects, for instance. Though both types of beings possessed great mental potentialities, there could be no sense of kinship between the two. The insects would master Earth, trampling man underfoot in the process. We'd be given no opportunity to develop intellectually—in fact, our simian relatives might find it a little crowded in the jungle branches.

"INTO ANOTHER DIMENSION" briefly paints a picture of *Homo sapiens* out-flanked before he starts by creatures of basically different stock.—*Maurice Duclos, Bell, California.*

"Well, what DID you expect to find down here?"

POLTON CROSS
Author of
THE MAN FROM HELL

I SUPPOSE stories about atomic force are legion. I know I can recall them over a period of fifteen years in s-f mags, and since the "World Set Free" in books. But how many such stories, with the exception of "World Set Free" really covered all the likely territory of such a fascinating subject?

Actually, "The Man From Hell" is a combination of two original ideas. The first idea was "How much would a man learn if he passed over the gulf of death and, by some scientific process, came back to life?" That set me wondering. Suppose, say, Aristotle had gone on adding to his knowledge in the Hereafter? How much would he know now? A good deal, I figured—so I worked it into the yarn. It does, I know, set the reincarnation theory at discount, but it is as logical as reincarnation (and one must have two sides to a question) so I used it.

Another idea that linked up with this was a statement by Sir Arthur Eddington in his "New Pathways in Science." He says at the close of his brilliant chapter on "Subatomic Force"—

"It cannot be denied that for a society which has to create scarcity to save its members from starvation, to whom abundance spells disaster, and to whom unlimited energy means unlimited power for war and destruction, there is an ominous cloud in the distance though at present it be no bigger than a man's hand."

Now, suppose that handsized cloud came right overhead? What of the struggles of men to use this power for all its worth? That gave me the idea of big business operating unscrupulously to utilize this mighty discovery of a young scientist. Because he hindered big business he was callously destroyed. Up to here I had the logical human slant on the problem.

This might develop into an ordinary story of atomic power, I thought. But no plot is new: it is the angle that counts. So, what if the dead man returned to claim his secret, and not only claim it but use it for powers never dreamed of? What if atomic force is really only one of several doors to power? Suppose its mighty strength is not limited to just the release of energy?

I have tried to piece together theories old and new and knit them up into a yarn of interest with human characters going back and forth across the background. In consequence, to achieve the balance of action in the first parts I have shuttled between the characters with episodic swiftness in order that the interest may not flag at the wrong moment. I hope I have succeeded.

As to the end, some may be disappointed—but I must say in justice to myself that I considered it the only possible finish. I could have invented a high powered scientific miracle to make things happy ever after, but is there not a certain realistic poignancy in that vision of an empty beach down which the conqueror of unrest passed for the last time? I have a feeling there is. It is for you to judge. —*Polton Cross, London, England.*

NELSON S. BOND
Author of
F.O.B. VENUS

To me, the interesting part about science-fiction is the fact that its adherents are a "closed corporation." The readers, while vociferous in their demands, and determined in their likes and dislikes, are faithful. And the writers—well, I can honestly say that I have never read an *excellent* story by any science-fiction writer who was not also a science-fiction fan.

Given adequate ability, the average writer can create an acceptable story in almost any of the other broad divisions of the craft. He can write a salable detective, sports, love or western story. But science-fiction—no! If he does not honestly like science-fiction, the "tongue-in-cheek" attitude will show plainly in his story. If he does not believe, wholeheartedly, in the approaching scientic wonders foreshadowed by these magazines of the Future, the reader cannot help but detect the undercurrent of his doubt. To the detriment of the story.

With this avowal, I offer myself for the first time to the readers of AMAZING STORIES as not only a *writer* of science-fiction, but as a long-time *reader* in excellent standing. With you others, I have my recollections of the great scientific stories of the past; I have my memories of fallow periods, during which only faith carried us along from issue to issue; I have shared the delightful experience of seeing science-fiction suddenly, and within the recent months, shake off the doldrums in which it was lying, and be reborn into a newer, stronger, more dominant voice.

I sincerely hope that F. O. B. VENUS will prove itself a worthy contribution to the new, great science-fiction renascence.

In writing "F. O. B. Venus" I have tried to create a set of characters in interplanetary space who would seem human, real, and everyday. They are the sort of men I like to imagine might, and will, actually man the spaceships of tomorrow.

Perhaps the character of Lancelot Biggs may seem an attempt at humor, rather than at science fiction, but he seems to me to be the sort of fellow I've seen often at college. Sometimes we may assume a man to be simple, and accuse him of pulling a boner, but he may have something entirely different in mind, and when all is said and done, it is we who have accused him who sit back abashed, forced to retract our words. And this is Lancelot Biggs as I pictured him.

This column is called, "Introducing the Author"—but I believe you can best meet this particular author through the medium of his story. If you like it, some time again I may appear in this column to tell you who I am, and what makes me tick.—*Nelson S. Bond, Augusta, Ga.*

Quiz Page

THE following quiz has been prepared as a pleasant means of testing your knowledge of things fantastic and scientific. We offer it solely for the pleasure it gives you, and with the hope that it will provide you with many bits of information that will help you to enjoy the stories in this magazine. If you rate 60% correct in your answers, you are considerably ahead of the average.

KNOW YOUR PLANETS?

(*Fill in blanks with the required words or numbers*)

Mars was named after the God of....., because of its.....color which covers..... of the planet's surface. It has a diameter of..... miles, and is the.....planet from the Sun. Its synodic period is.....days, and its sidereal revolution.....days. Mars has two small moons .....and.....having diameters of about .....and.....miles respectively. The surface features can be seen quite clearly, due to the planet's.....atmosphere. The most interesting of these features are the.....discovered by .....in 1877. Mars has polar ice caps of which the.....is the larger. The chief reason for the belief that there is vegetation on Mars is due to the fact that as.....shrink the.....and.....grow.....

SCRAMBLED WORDS

1. A limestone formation hanging form the roof of a cavern.....TASSACTITLE
2. Substance given out by volcanoes...ROSCIA
3. Lighter-than-air craft .....PIMBL
4. Sea of the Moon (Luna)...BUNARMEIUM
5. Animal that builds dams.....ABERVE

TRUE OR FALSE

1. An ornithopter is an aeroplane that flies by flapping its wings like a bird. True.... False....
2. The Romans invented the rounded arch. True ..... False.....
3. The caliber of a big gun is the size of its bore. True..... False.....
4. A talus slope is a slope composed of debris which has fallen from the top and face of a cliff. True..... False.....
5. A serpentine is a large insect. True..... False.....
6. Jupiter has eleven moons. True... False...
7. Moraines are composed of debris carried by a glacier. True..... False.....
8. Aeroplanes are now being made of plastics. True..... False.....
9. The rifle was invented first and enlarged into the cannon. True..... False.....
10. The diameter of Venus is about 7700 miles. True..... False.....
11. A fathometer is an instrument to measure heat by the colour of the heated body. True..... False.....
12. A hurricane is a cyclonic storm. True..... False.....
13. A bascule bridge is a lift bridge. True..... False.....
14. A brig is a ship with one mast and fore and aft rig. True..... False.....
15. Of the stars visible to the naked eye one in every nine is a binary. True..... False.....

WHY WHEN WHAT HOW?

1. Why don't they make refracting telescopes the size of some of the larger reflecting telescopes?
2. When was the first telescope made?
3. What do they use "barking drums" for?
4. How can one measure the speed of a star?
5. Why does a comet's tail flare outward away from the sun?

WHICH ONE?

1. Lines joining all places having the same annual mean temperature are called: isobars, isotherms, isogonic lines, isometric lines, isochronal.
2. A dioptre is: an order of insects, a chemical flash, a unit of power in lens.
3. An Eustachian tube is: the tube in a laboratory condenser, a tube connecting the ear and mouth, the speaking tube on a boat connecting the Captain's bridge to the engine room.
4. Which of the following is a metamorphic rock: Granite, Syenite, Limestone, Gneiss, Sandstone.
5. The planet with the greatest oblateness is: Saturn, Jupiter, Uranus, Neptune, Mars.

STARDUST

1. Give the total number of the satellites of all the planets.
2. Name the planets to which each of the following physical features belong: Solis Lacus, Mare Nectaris, Syrtis Major, Aegean Sea, Great Red Spot, Gulf of Carpenteria, Crape ring, Copernicus.
3. Does a comet regain its tail after it passes the sun?
4. What are bolides?
5. How long is a Martian year?

(Answers on page 98)

READER'S PAGE

A LADY COMES FORWARD

Sirs:

Congratulations! The May issue was excellent—July issue, Super-excellent. Pray tell where I'll get words if the September issue is even better?

Where are you lady readers? 16 men writers for Reader's Page and *not one woman!* Don't any of your wives read your magazines, Mr. Darrow? Mr. Bristol? Mr. Unger? Or, maybe there's something different about me because I just love AMAZING and FANTASTIC!

I happen to own every book ever written by Edgar Rice Burroughs so that thumb sketch was doubly welcome. And of course the novel in this issue.

I'm sure the readers will agree there is place for FANTASTIC every month.

Changes? Yes, one; please put the coupon for rating the stories on Page 95. I had to ruin that perfectly good comment by Nelson S. Bond in "Introducing the Author." Of course if you'd put "Paul's" page, concerning his glorious illustrations on the back of the cover, on Page 96 and use Page 97 for the rating coupon I think it would please many. Otherwise keep up the good work. Keep Paul under contract for life. He's marvelous. And do ask the ladies to write so I won't feel so alone in my comments.

Mrs. Gene Zwick,
230 Westminster,
Buffalo, N. Y.

P.S.—I own every copy of AMAZING and every other Science-Fiction or Weird magazine ever published, (some only published 1 or 2 mags) so Jack Darrow has only *one of the* largest!—Please!

INTRIGUED

Sirs:

The title, "The Golden Girl of Kalendar," intrigued me at first sight. I expected something exciting, fascinating, other-worldly. But I was unprepared for what followed. As the first few words crossed my weary brain, the drab cloak of the things of everyday existence fell off in an instant. Like John Kalen I let fascinating course of events sweep me unresisting along its path until I stood before the walled city. Eagerly I awaited admission to the land of Kalendar—say rather the land of Fantasy where happens the things only hinted at in our dreams. Impatiently I awaited the reappearance of Jalu. I finished the tale with genuine regret, and I shall watch FANTASTIC ADVENTURES hopefully for another episode of the world of Kalendar.

F. P. Shelburne,
24 S. 37th Street,
Philadalphia, Pa.

NOT "CONVERTED"

Sirs:

I am afraid you have not "converted" me yet, though I will admit the September issue is far better than the first two issues. I actually liked half the stories. "The Man Who Saw Too Late" was excellent, with "The Insect Invasion" and "The Amazing Invention of Wilberforce Weems" battling for second place. The humor in "The Amazing Invention of Wilberforce Weems" more than made up for its rather sketchy science. In all it was a very good story that I thoroughly enjoyed. That goes to show that I do not only like the "science" type of story.

The type I don't like is the so called "adventure" type; a cowboy story dressed up with ray guns, or King Arthur's knights on Mars, as in "The Empress of Mars." Although I have read so many stories of lost or unknown civilizations on plateaus, in volcanic craters, in hidden mountain valleys and in the centers of swamps, that my stomach turns whenever I see another, I rather liked "The Golden Girl of Kalendar." Tremaine has an absorbing style of writing. It is however not science fiction. If I want to read the "lost civilization" type of story, I can find them in great numbers in any adventure magazine.

Strange to say, in my opinion "The City Under the Sea" was easily the worst in the issue. I have seen some suits used for deep sea diving, and it is a wonder to me that Gerry could walk in one of them out of water, let alone fight. In water of course the buoyancy of the contained air makes it easy to walk.

Schachners explanation for the origin of the "fish-men" seems rather silly. Does he think that people will stand knee deep in water and wait for gills to develop? They would far more likely move to dry land. Anyway evolution is slow, and I imagine the poor fellows would get cold "tootsies" (also known as dogs) standing in water for several million years.

Fred Hurter,
Red Rock,
Ontario, Canada.

SHE SUPPORTS US TOO

Sirs:

Enclosed you will find my contest entry, and now that I can speak freely, I want to enter the slaps and pats-on-the-back you feature on your Reader's Page. Are women forbidden on that ground? I've noticed all your letters are from men. Nothing jealous, you understand, just want to get my two cents in, being female.

I want to snarl at the gentleman from Canada who said he believed interplanetary travel would never "come into existence." He has a right to his belief, but it's a bit inconsistent to say he believes in future adventures and then denies space travel. I'm open to argument, Mr. Powley, and promise a stiff battle.

Incidentally, I will agree with him on one point: I don't think your stories are "Fantastic." They are prophetic and make you believe life is really going to be, and *is*, worth living.

From your first issue and now your second, I can say they are really popular in our home. The day we bought it, Mother and I snatched the magazine from one another. We want to join the yammering ranks of those who want a monthly edition. If others can write a story each month, why can't your authors? Each one I've seen so far, except Burroughs, is absolutely tops. It won't spoil their popularity any to come in each month.

B. E. Bovard,
17 Costa St.,
San Francisco, Calif.

HE LIKES US!

Sirs:

Here's my two cents worth about FANTASTIC ADVENTURES.

It's COLOSSAL!!!

It's STUPENDOUS!!!

It's TOPS in magazine value. Why I do believe that if FANTASTIC ADVENTURES sold for 50c once a month that I'd buy it. Now that I did mention it, I don't see why you couldn't put it out every month instead of bi-monthly. I also want to compliment Paul for his magnificent paintings—they get me. The back cover is the first thing that I look at when I lift the book from the newsstand.

After I read the July issue of FANTASTIC ADVENTURES I was rather let-down by the story *Scientists Revolt*. In the 1st place I don't think that detective stories have any place in auther life of Edgar Rice Burroughs, though his story had a good plot and I liked it. He should be writing more yarns about Martian adventures, and please for my sake and the sake of many others, have Burroughs write more tales of John Carter on Mars especially for this magazine—where it would fit the best.

Although I did say this mag was tops, Nelson S. Bond's *Monster*

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30x5.00-20	2.85	1.25
5.25-17	2.90	1.35
28x5.25-18	2.90	1.35
29x5.25-19	2.95	1.35
30x5.25-20	2.95	1.35
31x5.25-21	3.25	1.35
5.50-17	3.35	1.40
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FREE BOOK

From Nowhere could have been 75% better.

Here's a question I would like to have answered. Is Ed Earl Repp, author of *Invaders From Sirius*, the same Ed Earl Repp who has been writing western stories?

That's all except for another thing, which may sound nutty, but it's only a suggestion. Why couldn't you put a picture of one of famous artists in this magazine once in a while. Even if you do not make any changes FANTASTIC ADVENTURES, to me, will remain in the future a "top notcher" fiction book full of interesting subjects and enjoyment that even a king woudn't want to turn down.

I'll be thinking of you as I read the next issue. Keep up the great work.

Nevin McPherson,
So. Franklin St.
Polo, Ilinois.

● Yes, Ed Earl Repp has written many westerns. As for artists, we'll give you pictures of them at intervals. We'll hand you McCauley shortly.—Ed.

ITEMIZED SUGGESTIONS

Sirs:

I'd like to offer a few more suggestions that are aimed primarily to help edit AMAZING and FANTASTIC ADVENTURES. Perhaps it would be easier if I itemized them:

1. Use smaller type in Readers' Page.
2. Use more of the shadow-type (The Golden Amazon) for story titles and less of the artistic script and brush letters.
3. Offer for sale back-cover pictures suitable for framing. (No printing, that is. You might though, have the text on the reverse side of the paper.)
4. Enlarge the readers' department and keep editorial comments. They are, in many cases, the life of the party.
5. Continue full page illustrations.
6. Continue back cover pictures. By the way, what's Paul going to do in five more issues when the planets run out? That will be in May, 1940 unless FANTASTIC ADVENTURES goes monthly which it should. I have a suggestion which you might use. Why not have him draw a Man From Earth (!) as envisioned by a Martian, Saturnian, or Jovian?
7. Continue using the humor cartoon on the editorial pages in both mags.
8. Continue introducing the Authors' sections.
9. Continue the story contests.
10. And lastly, continiue with the good work, and may your circulation wax brightly.

J. S. Avery,
55 Middle St.,
Skowhegan, Me.

● We'll have Paul act on your suggestion, and do us a "Man From Earth," as a Martian might imagine him, judging from the facts about earth a Martian might be able to discover by observation and instrument. It should prove to be extremely interesting for inclusion in our series.—Ed.

MORE STORIES?

Dear Editor:

I have just finished reading the second issue of FANTASTIC ADVENTURES. I think that your magazine is either too large or not thick enough. Its appearance lacks something. We Science-Fiction fans expect plenty for $.20. The stories within are absolutely tops but there aren't enough of them. Another magazine, which is also $.20, offers nine stories but only two articles. I think that if you would replace some articles with stories your magazine would be improved.

Are you going to have a story about "LEMURIA" in every issue? I have been reading science fiction stories for eight years and I never have been able to understand electrons and atoms and time stories. Therefore I am definitely not in favor of having a fourth dimension story in every issue as one reader suggested.

Danny Espinoza, Jr.,
350 N. 21st Ave.,
Phoenix, Arizona.

● If we have more stories, they'd have to be shorter. Do you want that? We think not. Lemuria will not appear every month, but Kirk, the Wanderer, will be around again. We'll try to give you a good variety of subjects each month. So you won't have to wade through electrons and atoms and time stories.—Ed.

WANTS S-F EVERY TWO WEEKS

Sirs:

Congratulations on your new magazine, FANTASTIC ADVENTURES. Let's have more stories about Kirk, the Wanderer and Violet Ray, the Golden Amazon.

Could it be possible to put a S. F. magazine on the market twice a month or better? I am not the only one who can read an entire magazine in one evening surely, therefore, I am positive that more of your readers than I would appreciate receiving your magazine at least twice a month so that we would not have to read something not nearly as lively to fill in between.

Maybe your authors can not write stories that fast, I hope that they are not that slow.

I place the story "The Golden Amazon, at the top of your list of stories for July. And hope that more of its type will appear in future issues. I also hope that you will continue with complete stories rather than continued serials. Come on now and try pleasing me and all your other readers at the same time. Give me a swell reply with another magazine each month.

John Larson,
133 Seventh St.,
May 25, 1939.

BACK TO THE GOOD OLD DAYS

Sirs:

FANTASTIC ADVENTURES brings me back to the good old days of science-fic-

tion. Morey on the front cover, and Paul on the back; who could ask for anything more? I like the variety in your illustrations, and who is kicking about those undraped dames? Not me.

Edgar Rice Burrough's name on the cover is quite a drawing card and his story was a well-written scientific mystery yarn. I also enjoyed "The Monster from Nowhere," by Nelson S. Bond, and "The Golden Amazon," by Thornton Ayre.

The departments are excellent, especially "Fantastic Hoaxes." I see that Ray Holmes has departed via the Zarnak route, for which I am thankful. However, I must admit the cartoons in both FANTASTIC and AMAZING are very humorous.

George Aylesworth,
Box 508,
Mackinaw City, Mich.

SERIOUS ERROR!

Sirs:

I finished the second issue of FANTASTIC ADVENTURE, and I have found one serious error in the contents. I read everything: the stories, the editor's notebook, the author's corner, the quiz page, the reader's page, and the thumb-nail articles, and I found everything great—except for one fault. When I finished, I was disappointed because there was not more!

Both the front and the back covers are excellent. I'm glad that they show a vivid life instead of being dull and flat. It adds zest and flavor to the fiction.

It's hard to select the best stories. I picked Burrough's "The Scientists Revolt" for first place. This is a story that is well written and plotted and has sustained interest. It's not often pulp readers get such an excellent story. You have outdone yourself. Second place goes to Fearn's "She Walked Alone"—a fine psychological yarn with an idea behind it. Third goes to Repp's "Invaders from Sirius"—a swell adventure story. Fourth goes to Kummer's "Intrigue in Lemuria." I hate to place this fourth as a fourth seems to indicate that it's an also ran, and the yarn is nothing of the sort. It's a fine adventure story.

Ayre's "The Golden Amazon" isn't as well plotted as the others. Slam-bang action does not in itself create suspense. But the character is excellent, and I would like to see her in future stories. But she should be handled more sympathetically by playing up her courage in fighting and conquering her background in isolated Venus, and by telling of her love and almost hopeless struggle against the crime syndicate. The man in the case should be secondary. He should handle the practical aspects of the situations and those things with which she would have no practical knowledge due to her isolation on Venus. In other words, she would be a character super developed physically and mentally but unfamiliar with the practical routine of earthlife.

The Editor's Notebook is the most interesting department written by any editor that I have ever come across.

Congratulations on putting out an excellent magazine and doing such a swell job in giving the readers what they want.

Sincerely yours,
L. K. Offenbecker,
1354 Early Ave,
Chicago, Ill.

OUCH!

Sirs:

To the great bellow of your very complimenting reading public, I, a poor unimportant fan should like to add my small inconsistent croak.

"Please, give us more of the "Juicy" illustrations like the one to Verrill's yarn. Continue with your marvelous story policy, especially with those illustrious imitations of Burrough's Martian stories. Keep science well in the background and give us beautiful voluptuous females instead. Make your stories more horrible and adventurous, we don't mind if they do run away with science, science is best left alone, in fact don't even call the magazine Science-fiction. We don't want that, you know, we just want adventure, sex and horror.

Continue to bring the sensationalist and thrill seeker to the magazine, and always consider their requests before the fans. Give us an editorial each week which admirably serves to make the magazine all the more a conceited product, and drown out all fans' views below the barrage of horror demands.

Do this; in other words, keep on with your present policy, in your magnificently well ordered manner, and watch FANTASTIC ADVENTURE submerge into the cesspool of its conceited past.

Frank D. Wilson
(Bloated Plutocrat),
16 Pilkington Rd.
Southport, Lancashire.

P. S. Despite my jabber, I must congratulate you on the large size and . . . Paul.

GENERAL CRITICISM

Sirs:

First we'll take up the July covers, starting with the front. Here I find two points in your favor: elimination of that inane border, and reduction in quantity of wordage. So far that's all very nice. But as to cover picture itself—I shudder convulsively! Is that the best of which the famous Morey is capable? I certainly hope not! Now, in spite of my previous remarks, I do not demand *artistic* covers, necessarily, but I do demand attractive ones. If you can't give us *beautiful* cover scenes, why in the world can't you come to bat with a pretty one! The July effort is simply repulsive. Even Fuqua has done better than that, as witness his job on the April AMAZING, which *was* attractive.

I can't understand you at all. Here you have one of the "better" artists, MacCauley, and you simply ignore him. His back covers on the January and

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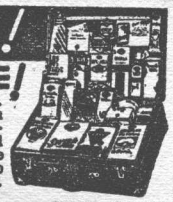

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April AMAZINGS were at least pretty, which is something. Why in the world don't you give him a chance on the front?

The back cover, however, was different, most definitely! It very nearly ranks as a work of art. Why can't we have something like this on the front, for gosh sakes?! If Paul can do this good consistently, you should certainly try him on the front, but he is also capable of some awful ones, so be careful about it. By the way, when are you going to eliminate the text from the back cover? That's a very well set up title.

So much for the "art" work, and on to the fictional offerings. I find that I cannot get overly excited about them this month, except for Burroughs' story, "The Scientists Revolt," which was really good! I won't say it's the best story I ever read, because it certainly isn't, but it does rank in the top fifteen or twenty, which isn't at all bad!

Ayre and Bond had rather good stories, although the former didn't have much plot, just as Thornton warned. But Violet Ray (what a name!) *is* a rather good character, even if she is a woman. A sequel would be appreciated.

Sequel also wanted to Bond's piece. It had very little of that elusive quality called "story," and could be summarized in one sentence, "Four dimensional monster gets captured; escapes; and carries off would-be capturer." But a sequel, wherein Harvey goes after Patterson, might amount to something, if Bond tries hard enough.

The rest of the stories aren't worth much, for one reason or another. Kummer spoiled his by his treatment of the much maligned "feminine 'interest'"; Fearn's had so little plot as to be pitiful; and Repp's was simply awful.

Someone once said that the gyroscope is the most maligned of scientific instruments, and that is definitely correct. Without even analyzing the matter deeply, I can dispose of it quite simply.

A gyroscope consists of what is termed a closed system. The centrifugal force due to rotation of a heavy wheel is balanced in all directions. So how in the world do you think a gyroscope could tear the Earth from its orbit and send it in the direction of Sirius? Gyroscopes *could* (if big enough) produce the most amazing contortions imaginable; they could set up a new axis, or even several of them, which would effectively wipe out life on Earth, but nothing more than that. At least you'll have to show me how. And even if the Earth could be treated in such an insulting manner, how long do you think the journey to Sirius would take? Earth is traveling at about eighteen miles per second about the sun, and the whole solar system is sailing along—I forgot in what direction or at what speed, but what's the difference? Sirius is nine light years from here, and at eighteen miles per second, more or less, it would take plenty of time to get there. And don't try to tell me that gyroscopes could produce any acceleration!

This is getting confusing.

Here is my vote for smaller type for departments; be certain to accept that John Taine mss.; and don't bungle the job of getting Wesso and Finlay, especially the latter. Fuqua and Krupa are your only good illustrators at present, and the latter is good only with machines. Morey is very ambiguous; Jackson is terrible; and Reeves is only mediocre. The latter, however, may get somewhere.

Sincerely yours,
R. J. J.

SUSPENSE

Sirs:

Most science fiction stories begin early by stating a problem to be solved—example—Insect Invasion—City Under the Sea—Horror Out of Carthage—Man Who Saw Too Late. Now this much any fan knows—THE PROBLEM WILL BE SOLVED. And with credit to the hero. SO THE READER KNOWS that much of what is going to happen!

BUT—that isn't true of the Golden Girl of Kalendar, and the Amazing Invention of Wilberforce Weems. The interest is not only sustained but kept in a suspense of wonder as to what will happen next, and nothing of the ending is given away. So—vote one for Orlin Tremaine, who has a gift of telling a lively yarn. More like the Golden Girl of Kalendar, please. And Nelson's tale —well, it speaks for itself.

Incidently, the back cover was the best yet, and I note the printing is so removed from the picture that it can be clipped away easily, leaving the entire body of the illustration for framing. thanks for that! And it does look nice, that way.

J. Harvey Haggard
940 5th Street
San Bernardino, California

WHOOPS!

Sirs:

McCauley's cover on the September "Fantastic" is a disappointment. After admiring this gentleman's work on the back covers of "Amazing," I was let down with a bang. Tell me, please, why you do not allow Frank Paul to do a "Fantastic" cover. Are you afraid that the readers would want to keep him on front, once he were given a chance? Judging from his "Life on Other Worlds" series, and especially from the excellent "Life on Mercury" picture, I think it only fair that he should be given a shot at the front cover. How about it?

Another thing—what a mess the cover lettering is! That "fantastic" looks like it was hacked out of rotten wood—or snipped out of a Lucky Lager ad. Undignified as hell! If you try, you can undoubtedly bring order out of the chaotic cover, but the way things are now, it's going to take plenty of work.

Enough of covers, etc. After all, it's the contents that count! May I hazard a few suggestions?

First: Try to restrain the self-adulation of the Editorial Column. Ninety

percent of the space is taken up with bragging about what a colossal magazine "Fantastic" is. Pretty soon you'll be believing it yourself! Shaw's little cartoon is clever; this is one department in both "Fantastic" and "Amazing" which I always enjoy.

Second: The size of type you use is an insult to the reader's mentality. What is this—a kid's story-book? If it is, then the type is just right. If it's not, then change the type to about 8 pt. The saving in galleys should balance any additional expense.

Third: The stories. With the exceptions of "Wilberforce Weems" and "Man Who Saw Too Late," they were all pretty punk! Your stories are stereotyped. They are all the same basic plot, with slight variations and different characters. Can't you do something about this? Science-fiction is evolving, and your stories are almost invariably anachronisms from a cherished but dead past. Get some new ideas.

Louis Goldstone, Jr.,
622 Presidio Avenue,
San Francisco, Calif.

● Mr. Paul will definitely be given a chance at a front cover—at more than one of them. We will select a story we believe suited to his style of science fiction illustrating.

As for our editorial column, we might agree with you that it isn't as good as the rest of the stories by writers who put us in the shade, but we stoutly defend our right to give the readers our opinion on the stories we publish, and on science fiction in general—because we know our reader wants to know what we think; after all, you tell us what you think. (And how we love it!)

The type size has come in for a lot of praise, because, of all the magazines running science fiction, it is the easiest to read, and strains the eyes the least. Certainly you appreciate the commonsense of that. 8 pt. would really give your editor the blind staggers. He'd be a blind man in a year! But he wouldn't mind, if he was sure the readers wouldn't, and he's sure they would!

So much has been said about evolution that its application to science fiction stories seems carrying the point too far —but you do bring up a significant fact. Certainly science fiction evolves. It gets gradually to the point where only super-super, gosh-a-mighty science can get by the super-science educated reader. In fact, he's read all the "new" ideas, and he finally quits reading science fiction. He has evolved. So has science fiction. Both die. Nice, eh? Not for your editor! He wants his magazine to go on, but outside of that, he knows there's a new crop of science fiction readers eager to take the "old grad's" place. But hang it all, how can they fathom the old grad's super-science? What attracted the old grad in the first place? A darn good story, entertaining, thrilling, and *understandable*. Now, a fiction magazine is for just that purpose. So, Darwin and science fiction don't mix. However, we admit the story quality can evolve, and we believe we are aiding such evolution. Our stories, we're sure, are better plotted, better written, and better received than those of years ago.—Ed.

HE STAGGERS—SO DO WE!

Sirs:

Just a few lines to tell you that the two *best* science fiction magazines on the market, (FANTASTIC ADVENTURES and AMAZING) also possess the two *best* titles in s. f., the services of the *best* authors and illustrators.

One criticism concerning Paul's back covers. Why does he put human organisms on life on other planets!?! I always thought earth was the youngest of the planets. It seems to me *if* life does exist on other planets, the inhabitants of *Mars*, for instance, would be so far advanced scientifically that they would consider life on earth in its lowest stage. Their bodies doubtless would be incredibly frail, and small, but their heads and intellectual powers equally as incredible. It is more than possible that some would live entirely in their imaginations! ! Think of it cities, even world's, within the imagination or brain ! ! ! The immensity of such a thing would stagger us. It would be highly improbable that we would be able to communicate with life from other planets. Because if such a world of intellectual beings, that I previously have mentioned, should conduct an expedition to earth and saw enmity, hatred, wars, and murdering going on the scale that it is today . . . God! Why they probably would exterminate us, as so many vermin.

Pardon me for getting away from my point. I wish to add: please continue with the footnote policy. They serve as an asset to the story. (in other words they explain the science more in detail.)

Richard C. Gardner
212 Second Street
Elyria, Ohio

● Why would an advanced race be frail? Wouldn't their advanced science more logically show them a way to keep robust and healthy? Your ideas on imaginative worlds ought to stagger you. It gives us the willies. You certainly don't think much of Species Earthianus (to coin a term) do you? Anyway, I hope there are no "intellectual" beings in the universe, if they are anything like your imagination.—Ed.

A REQUEST

Sirs:

I was much interested in Alfred Bowles' letter in the September issue of *Fantastic Adventures*. Though I still prefer my own theory of a water "curtain" about the Earth shutting its inhabitants off from the sun's actinic rays, and thereby causing them to live longer, Mr. Bowles' theory intrigues me. He's partially right, you know: *Genesis*, VI, 4, states that the intermarriage of superior and inferior stock caused the inception of a "fusion" stock, whose wickedness caused the Deluge. Incidentally, I was quite peeved because no

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665 W. Lexington St. Baltimore, Maryland

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one took up the cudgel against my own pet idea; I'd hoped to encounter a number of dissenting opinions.

I owe you and Fuqua an apology. I said in the not-too-distant past that Fuqua, as an artist, was not so hot. I take it back. His work in this issue—especially the drawing for "The Man Who Saw Too Late"—was superbly executed. I don't retract my statement to the effect that Jay Jackson has no place in this magazine; his cartoonish effort for "Horror Out of Carthage" would do well for a spicy adventure story, but here—

I'd like to see more cartoons; the one on the editor's page was a pip!

Now I want to register a complaint. In the October 1938 *Amazing* a story appeared titled "The Atom Smasher." It's about the fifth time that title has been used. The July *Fantastic* sports a story whose title, "The Monster from Nowhere" was used by Donald Wandrei. In the current *Fantastic* Kummer uses a title originally conceived by Cummings in a serial. The editor changes the titles of half of the stories he uses in the two s-f mags, anyway; so why, therefore, can't he prevent such duplication? Or does he, not the author, cop the titles? Such copy-cat tactics don't help the magazine. Plagiarism is a hard word, but that is exactly what this practice is, even though it is a minor form of it.

I shan't complain about the stories; you know what the majority of your readers like. If they want what you give them, I'll always buy the magazine even if I don't read it. I'm really loyal to you no matter what you do.

I've never asked an editor to publish a letter of mine; but I'd really like to have this one published—*all* of it. Perhaps the readers think I'm making too much of small issues. Maybe I am. Anyway, I've always been of the opinion that little things make the magazine. And I'm truly honest in all my criticisms I've made.

Langley Searles
19 East 235th St.,
New York City

● If you were to really go into this business of seeking out duplicate titles, you'd find that almost all titles have been used dozens of times before in pulp fiction. "Six-gun Justice" for instance; or "The Range Riders." No editor could possibly remember all the pulp titles, even in his own field. Nor can he waste his time in exhaustive research to discover if his title has been used before—and no doubt he'd have to dig up a new one quite often, because he'd find it had been used. As for being plagiarism—that *is* a hard word, too hard to apply it to titles that deal in *generalities*.

As for your request, to publish *all* of your letter, I'm afraid we could open up a lot of discussion there, of a personal nature, but the truth is, we have, in common with all other magazine publishers, a definite policy against printing material that would not be of general interest, or which would offend anyone. All our readers must receive equal consideration.

If you recall the parts of this letter that have been deleted, you'll understand our point.—Ed.

A LONG TERM SCIENCE FICTION READER

Sirs:

It was with considerable pleasure that I read the second and third copies of FANTASTIC ADVENTURES (I missed the first one). I believe that there is a definite place in the field of science fiction for a magazine of this type. I am an old time reader of science fiction, having read AMAZING STORIES, your companion magazine, since sometime in 1926.

I sensed a decided improvement in the third issue over the second. With two months between issues, the editor should have opportunity to peruse many more manuscripts and give us better stories than any of the other publications of this general type. However, I do not favor the bi-monthly schedule of publication. When the next issue appears on the stands, I expect to see a statement to the effect that in response to a flood of demands FANTASTIC ADVENTURES will be issued every month.

"Golden Girl of Kalendar" by F. Orlin Tremaine is an unusual story in several aspects. First, it maintains the quality of suspense and mystery till the very end. Second, it had that indefinable something that one expects in the stories of A. Merritt, than which there is no whicher. This quality is not developed to quite the extent that is found in most of Merritt's stories, but it is indisputably there. Thirdly, the story has action. It moves along without much drag at any point. Few authors are able to avoid occasional drags. Fourth, it has romance without being mushy or maudlin. Romance is used here in both the sense of love story and in the sense of the aura of adventure. As a whole, this story is one of the finest that I have read in some time. It is definitely fantasy, more or less the pattern to use in this magazine. By all means have Tremaine write more stories for you.

My second choice was "The Man Who Saw Too Late," by Eando Binder, a gem of science fiction. It really is not as much fantasy as it should be to have a place in your magazine, but it was easily the second place story.

For third place I choose Edmond Hamilton's "Horror Out of Carthage." It was well done in Hamilton's best style. If it were not for the general plot being one that is familiar to readers of weird fiction, I might have rated the story higher. In any event this was a good story. Give us more stories that deal with ancient civilizations. One of A. Hyatt Verrill's would be appreciated.

Nelson S. Bond's "The Amazing Invention of Wilberforce Weems" ranks fourth because of its sheer humor and fun.

Frederic Arnold Kummer, Jr., with his "Insect Invasion" gets fifth. This was a good story and logical. But the

difficulty is that it is another of the earth-saver deluge.

Nat Schachner in his "City Under the Sea" is not at his best. It was readable, but far from his best effort.

The art work in the current issue is as a whole quite good. I liked the cover, but found that it referred to no story in this issue. The present staff of artists, headed by Paul, should be continued.

C. R. (Dick) Short,
Headquarters Co.,
2nd Marine Brigade,
Fleet Marine Force,
Marine Corps Base,
San Diego, Calif.

● The cover of the September issue illustrated a scene from "City Under the Sea," in the air generator building, as described on page 67.—Ed.

HE WHISTLES

Sirs:

The present issue—September—caused me to whistle sharply and nod my head in amazed approval. It surpasses the last two by a mile and a half.

The cover painting by McCauley gets a leafy bough. It was smooth, to say the least. All the details are so clear that at first glance it resembles a photograph. The figures are quite human, especially the man in the background. However, the girl looks rather like a badly frightened Chinawoman.

Speaking of drawings, I am glad to see that *Krupa* was not among the illustrators in this issue. Not that I have anything against him. He is a fine artist, but you know, we see so much of him in AMAZING STORIES that to see so much of him in FANTASTIC ADVENTURE also, makes one a bit tired of him. After all, variety is the spice of life.

I am anxious to see Finlay and Wesso in the mag.

The mag seems more like a s-f mag now that most of the stories have a scientific explanation to account for the fantastic events that occur. I like adventure, but I also want science.

The Amazing Invention of Wilberforce Weems was a most enjoyable tale. In fact, I am still chuckling over it. Bond is to be congratulated for this tale, not only because it contained humor, but because it escaped being a fantasy by reason of the scientific explanation at the end. This author is fast becoming a looked-for favorite of mine. He gets a whole tree—and there is no higher honor than that.

The Man Who Saw Too Late was a pippin of a yarn because of its new and startling idea. I was afraid at first that Binder would let the strange blindness go unexplained. However, since he did explain it, and offered such a nice solution as well as a swell ending, I hand him a dozen branches.

The Insect Invasion was a good story, but it somehow failed to awaken a favorable response in me. Why does Kummer always harp on the invasion theme? Some country is always being invaded by some fantastic menace, whole towns are wiped out, and the dying agonies of the people are always described. I do not care for such stories, but for a change I wish he would let the hero remain in a blind alley, and let the world be utterly destroyed. I toss him a mere bud.

Chester S. Geier,
2319 McLean Ave.,
Chicago, Ill.

BEST FANTASY AUTHORS

Sirs:

The third issue of FANTASTIC ADVENTURES was swell. So far the best adventure fantasy authors have been Frederic A. Kummer, Jr., Thornton Ayre, and F. Orlin Tremaine, with his story, "Golden Girl of Kalendar."

"The Man Who Saw Too Late" is story number one, I believe, for while the title and the plot are not original, new, or startling, it is unusual, probably since it has not been used much, or very recently.

Glenn W. Roberts,
4427 N. Parkside Ave.,
Chicago, Illinois.

HARD TO SELECT

Sirs:

In my opinion "The Golden Girl of Kalendar," and "The Man Who Saw Too Late" should rank as "Equal," but I selected the first as No. 1 because it is a real fantastic adventure in every way with every possibility of being a future incident. The plot is well carried out, the various events well shown, and the characters do not do the "impossible," and the climax and ending are exceptionally done leaving that fine feeling to the reader for a "sequel." An exceptionally fine story.

Ranking with my first selection is "The Man Who Saw Too Late," which portrays an incident that might happen to any one at any time. The descriptions of the trial that happen to the unfortunate character are well, and scientifically told, and the climax, and ending are quite within the bounds of reason. The plot is different from The Golden Girl and is more of a scientific story, and an exceptionally fine one too.

In my opinion, therefore, it would be hard to select either of these two stories for a first, but I have chosen the Golden Girl for first place for the adventure theme in the story as fitting for your FANTASTIC ADVENTURES.

Thanking you for the pleasure you have given me in your September issue, and anticipating more pleasure in future issues, I am,

T. R. Todd,
Apt. No. 1—Oakwood Mansions,
921 St. Clair Ave, West,
Toronto, Ont., Canada.

We are pleased to know that we have given you so much pleasure at reading these stories, and also that you had so much trouble selecting the best one. It proves to us that we are giving you good stories all around, and the harder you find it to select the leaders, the better we—and you—will like it! And with that, we close the Readers Page for this issue.—Ed.

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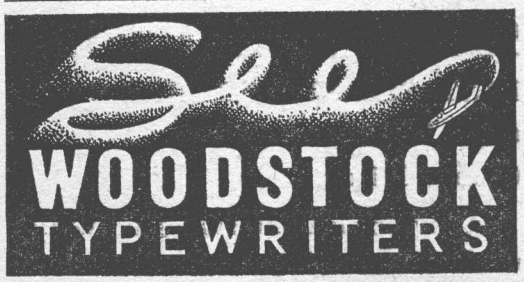
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PRIZE STORY CONTEST

WITH this issue we announce the winners in our big September story contest, and continue the policy of rewarding both authors and readers by offering the same prizes with this issue. $75.00 first prize to the author of the best story in the November line-up and $25.00 to the author of the second place story. These prizes will be awarded on the strength of reader reaction by vote, either on the attached coupon or on a reasonable facsimile. As a reader reward, we offer $10.00 to the voter who comes closest in his listing to the actual final results as published in our next issue, and who writes the best letter of twenty words or more on why he or she selected story number one for that position.

Come on, you readers, take advantage of this easy way to win ten dollars for the simple task of telling us which stories you liked and why.

And now, for the September winners. According to the coupons received, there was a distinct preference for one particular story, and your editors feel proud to know that we had secretly selected that story as the most likely winner when we bought it for you.

That winning story was "Golden Girl Of Kalendar" and it was authored by well-known and increasingly popular F. Orlin Tremaine. To him goes the first prize award of $75.00. Congratulations, Mr. Tremaine. You did a grand job on this fine fantasy adventure.

Next in line came Edmond Hamilton with his "Horror Out Of Carthage" and he wins $25.00 for his excellent yarn. Here again was a story that fitted our magazine superbly. It was fantastic adventure, plus.

And finally, to Mr. W. H. Lewis, Box 404, Freeport, Texas, goes the $10.00 reader award for astuteness in selecting stories in their proper merit. He missed only in placing "City Under The Sea" in third rather than last place. Congratulations, Mr. Lewis.

CLIP THIS COUPON AND MAIL TODAY

FANTASTIC ADVENTURES,
608 S. Dearborn Street,
Chicago, Illinois.

In my opinion, the stories in the November issue of FANTASTIC ADVENTURES rank as follows:

No. Here

.....The Man From Hell

.....The Purple Conspiracy

.....F. O. B. Venus

.....Into Another Dimension

.....Lunar Intrigue

.....Pioneer—1957!

Enclosed is my letter of 20 words or more, giving my reason for selecting story number one for that position.

Check here .....

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RATING FOR SEPTEMBER ISSUE

The following is the complete tabulation of the results of the voting for the September issue. The percentage rating is based on a perfect score of a possible 1134 votes.

Title	*Author*	*Votes*	*Rating*
1. Golden Girl Of Kalendar	F. Orlin Tremaine	864	.76
2. Horror Out Of Carthage	Edmond Hamilton	756	.67
3. The Man Who Saw Too Late	Eando Binder	729	.64
4. The Insect Invasion	Frederic Arnold Kummer, Jr.	595	.51
5. The Amazing Invention Of Wilberforce Weems	Nelson S. Bond	531	.47
6. City Under The Sea	Nat Schachner	504	.44

It was generally agreed by the readers that F. Orlin Tremaine did an excellent job of catching the atmosphere of our magazine, and it was pointed out that both prize winners, in fact, wrote stories that were typical of what should be expected in a magazine with the title FANTASTIC ADVENTURES.

Several of our readers asked us what the purpose of this prize award was, beyond giving the authors a break, and giving them a chance to make more money on their fantastic fiction. Well, it's really very simple. To date, it is significant to note that prize winners have almost entirely been authors who wrote stories that *fit our title*. This means we are correct in our selection of such a title as one that fantasy readers have been waiting for. But more than this, we are enabled to judge what type of stories are in demand by the readers, and get more of them for you. By voting, you are doing the most effective thing you can to get the kind of stories you like.

Therefore, it would seem very evident that it is your duty to vote. It's *your* axe we are grinding, and *paying* you for it! So why not get out your pencil and check the coupon on this page, listing the stories. You can't lose, and you can win. Mail it as soon as you finish reading the stories.

LIFE ON SATURN

BY JOHN HALE

WHAT KIND OF LIFE MIGHT EXIST ON SATURN? AMAZING STORIES' ARTIST HAS DEPICTED HIS IDEA OF THE "MAN" FROM THE RINGED WORLD ON OUR BACK COVER. THIS CONCEPTION IS DRAWN FROM SCIENTIFIC OBSERVATIONS

BACK COVER PAINTING BY FRANK R. PAUL

In considering the possible form of life that might exist on the planet Saturn, we must take careful astronomical and chemical analysis of the facts, insofar as we know them. Saturn is the most remote of the planets known to the ancients, and appears as a star of the first magnitude, outshining even Sirius with a steady yellowish light. Its mean distance from the sun is about nine and one half astronomical units, or 886,000,000 miles. This distance varies as much as 100,000,000 miles due to the eccentricity of its orbit (0.056). Its least distance is 774,000,000 miles and its greatest 1,028,000,000 miles. The inclination of its orbit to the ecliptic is 2½°. The sidereal period is approximately 29½ years, the synodic period being 378 days.

The planet is more flattened at the poles than any other, so that its equatorial diameter is 75,000 miles while the polar is only 68,000 miles. The mean diameter is about 73,000 miles, more than nine times that of Earth. Its surface is 84 times that of Earth and its volume 770 times. Its mass is 95 times that of Earth. Therefore its mean density comes out only one-eighth that of the Earth; actually less than that of water. It is by far the least dense of the planetary family.

However, its mean superficial gravity is 1.2, being almost normal Earth gravity at its equator. It rotates on its axis in about 10 hours, 14 minutes.

From these facts we can deduce several interesting things. First, that the planet has no stable surface, no continents, or land, as we know it on Earth. Therefore, our Earth visitor to Saturn will find no footing, but will be forced to inspect the surface and greet the Saturnian by lowering himself from his space ship through the gaseous atmosphere and hanging suspended just above the swampy, viscous, near liquid terrain. He would be forced to wear a protecting suit, since the atmosphere is filled with poisonous gases.

Once down through the murky mists, he would find a weird landscape indeed. The possibility is great that weedy growths, tending to bulbous, gas-filled objects, would abound. These would float on the surface of the liquid planet, and provide a mat of tough, buoyant vegetation. This would not support the Earthman's weight, but we can easily see where it would support the inhabitant of Saturn. Because, more than likely, he would be constructed very much like the "water-walkers" of our own Earth.

He would have a bulbous body, probably composed of a light skeleton, spongy, gas-filled cells, and heavy, leathery membrane as an outer skin. He would have spidery legs, capable of conveying his body over the matted vegetation without breaking through to the fatal depths below. He would have many tentacle-like arms, provided for the express purpose of wresting his food from the fruit of the gas plants, or fishing for it in the slime and muck of the terrain.

He would be incredibly agile and fast, and would be capable of traveling over the matted vegetation at great speed. He would probably not be a ferocious fighter, but rather an individualist, scooting about on his own business, mainly that of procuring food, most of the time. This would more than likely be true because of the enormous extent of his domain and the extremely rapid metabolism of his unstable world. The business of living would consume his entire attention, and it is to be doubted whether he could give the Earthly visitor more than a passing glance.

Reproduction would certainly be accomplished as an egg-laying, or spore-laying function. The female would lay her eggs in the steaming, warm muck, where they would float until hatched. It is likely that the young would emerge first as swimming creatures and later develop the power to take to the "land".

Mortality would be high, due to the slimy denizens of the deep which would develop riotously in the liquid world. Out of millions of eggs laid, perhaps only hundreds would hatch, and only dozens of them eventually reach maturity.

Life on Saturn would be a constant scramble for existence, on a huge scale. Also, the likelihood of death due to severe storms would always be present. The telescope shows much shifting of the surface, and constantly swirling atmosphere, which means quite a

bit of turbulence constantly going on. Perhaps in certain areas, great storms would cause disastrous tidal waves of muck. Other areas might be flung into boiling turmoil by the decomposition of vegetation deep in the muck, and the consequent rising of released gases.

Saturn is the most unstable of all planets, and life on that world is bound to be governed by this same unstability.

With all this to cope with, our Saturnian would not have time to develop a great deal of intelligence. He would know little more than the fact that he was alive, that he must mate, and that he must eat. Doing those things would take all of his time, and his civilization would be absolutely nil. No such thing as a city would exist, nor even a structure that could be called a home. Nor would there be any community life, since nowhere would there be solid terrain which would allow it. The Saturnian must be constantly on the move, lest his footing disappear beneath him.

Whatever solid areas there may be would be rare, and composed of light, fragile substance which could not be used to any useful purpose insofar as construction or habitation are concerned.

QUIZ PAGE ANSWERS

(Quiz on Page 88)

WHY WHEN WHAT HOW?

1. The lenses would break with their own weight.
2. October 1608.
3. They are used to take the bark off logs.
4. With a spectroscope, as movement causes a shift in the spectrum proportional to the speed.
5. The sun's radiation forces it back.

WHICH ONE?

1. Isotherms.
2. A unit of power in lens.
3. A tube connecting the ear and mouth.
4. Gneiss.
5. Saturn.

STARDUST

1. 28—don't forget the two discovered last year.
2. Mars, Moon, Mars, Earth, Jupiter, Earth, Saturn, Moon.
3. No.
4. Meteors that explode at the ends of their paths.
5. 780 days.

KNOW YOUR PLANETS

War... red (orange)... 3/5... 4200... fourth 780.... 687.... Deimos.... Phobos.... 5.... 10 rare (thin)... canali (canals channels)... Schiaparelli.... southern.... ice caps.... seas.... canali (canals channels)...dark (greener).

SCRAMBLED WORDS

1. STALACTITES.
2. SCORIA.
3. BLIMP
4. MARE NUBIUM.
5. BEAVER

TRUE OR FALSE

1. True.
2. False—it was the Sumerians.
3. True.
4. True.
5. False—it is an old type of cannon.
6. True—two new ones were discovered last year.
7. True.
8. True.
9. False—the cannon was invented first.
10. True.
11. False—it is to measure the depth of water by timing submarine echos.
12. True.
13. True.
14. False—it has two masts and has square rig.
15. True.

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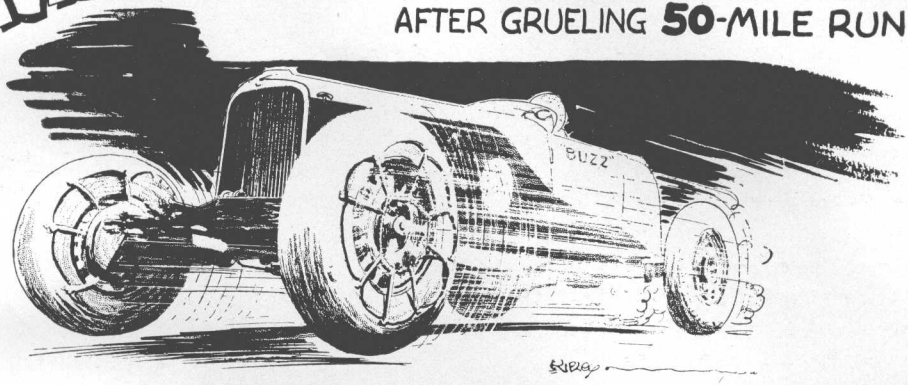
Believe It or Not! by Ripley

JELT DENIM WINS

RACING TIRE TEST!

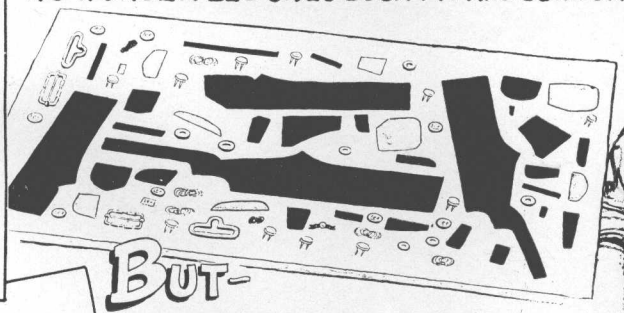
TIRE COVERS MADE OF FAMOUS **Lee** OVERALL JELT DENIM ARE **STILL WHOLE AND GOOD** AFTER GRUELING **50**-MILE RUN!



ROLLIN BUCK—"America's Typical Overall Wearer" Says: "*I COULDN'T BELIEVE TILL I SAW!*

NO WONDER LEE GIVES SUCH FIT AND COMFORT!

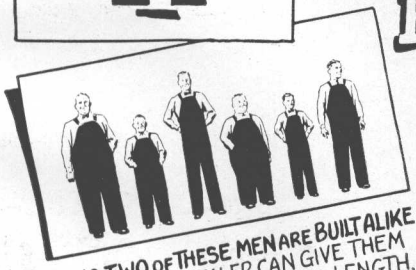
A PAIR OF OVERALLS CAN BE MADE WITH AS FEW AS **10** PIECES OF CLOTH—**5** BUTTONS—**2** BUCKLES AND THREAD



BUT—

IT TAKES **76** PARTS AND **484** OPERATIONS TO MAKE SUPER-COMFORT TAILORED-SIZE

UNION-MADE **Lee** JELT DENIM OVERALLS



NO TWO OF THESE MEN ARE BUILT ALIKE YET YOUR **Lee** DEALER CAN GIVE THEM ALL TAILORED FIT IN WAIST, LEG-LENGTH, CROTCH, BIB-HEIGHT

SEND FOR PROOF!

THIS MINIATURE CUT-OUT OVERALL OF JELT DENIM WILL SHOW YOU WHY THIS TOUGH MULTIPLE-TWIST DENIM WEARS **LONGER**··· **Believe It or Not!**

RIPLEY'S EXPLANATION: 50-Mile Test Run—Tires covered with genuine Jelt Denim carried Buzz Lewis, dirt-track speedster, on an amazing test run! No rips—no worn spots! These tire-covers looked as though they had many miles left in them. This test proves why Jelt Denim used only in Lee Overalls gives you far more wear—Believe It Or Not!

"Tailored" Sizes—(repeated by request): To make each size give the wearer a perfect fit, Lee uses 76 parts and 484 operations! Lee is the only overall made of genuine Jelt Denim—sanforized for lasting fit—and woven of multiple-twist yarn for extra wear! .... Believe It Or Not!

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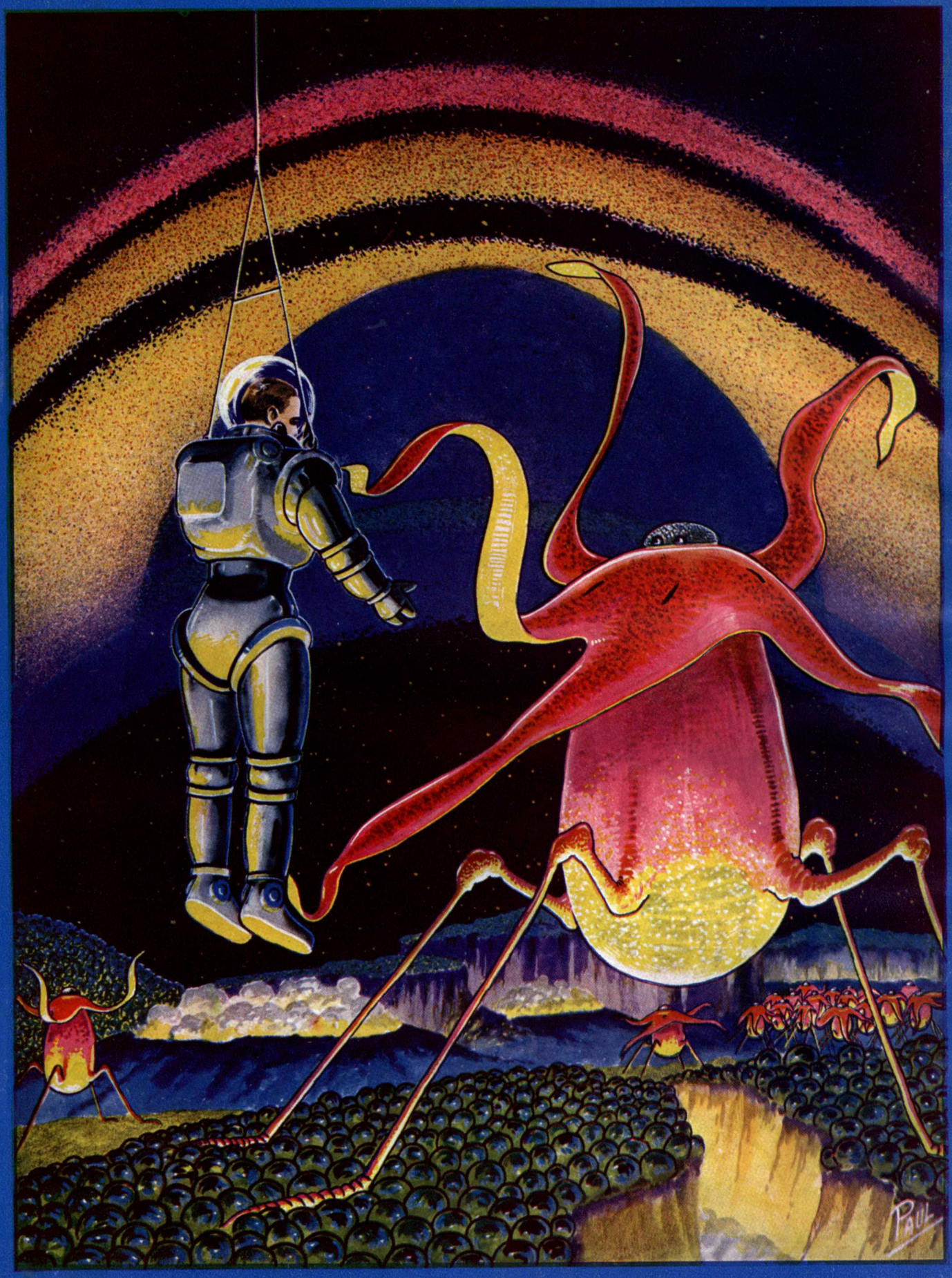
The H. D. Lee Merc. Company,
(Address nearest office) Dept. N-10
Kansas City, Mo.; Trenton, N. J.; San Francisco, Calif.; South Bend, Ind.; Minneapolis, Minn.

Please send me that miniature cut-out overall and my nearest Lee dealer's name, too!

Name _____

Address _____

Town _____ State _____

LIFE ON SATURN

Life on Saturn would evolve along insect lines, with light body, capable of walking spider-like across its swampy, unstable surface. See page 97 for details