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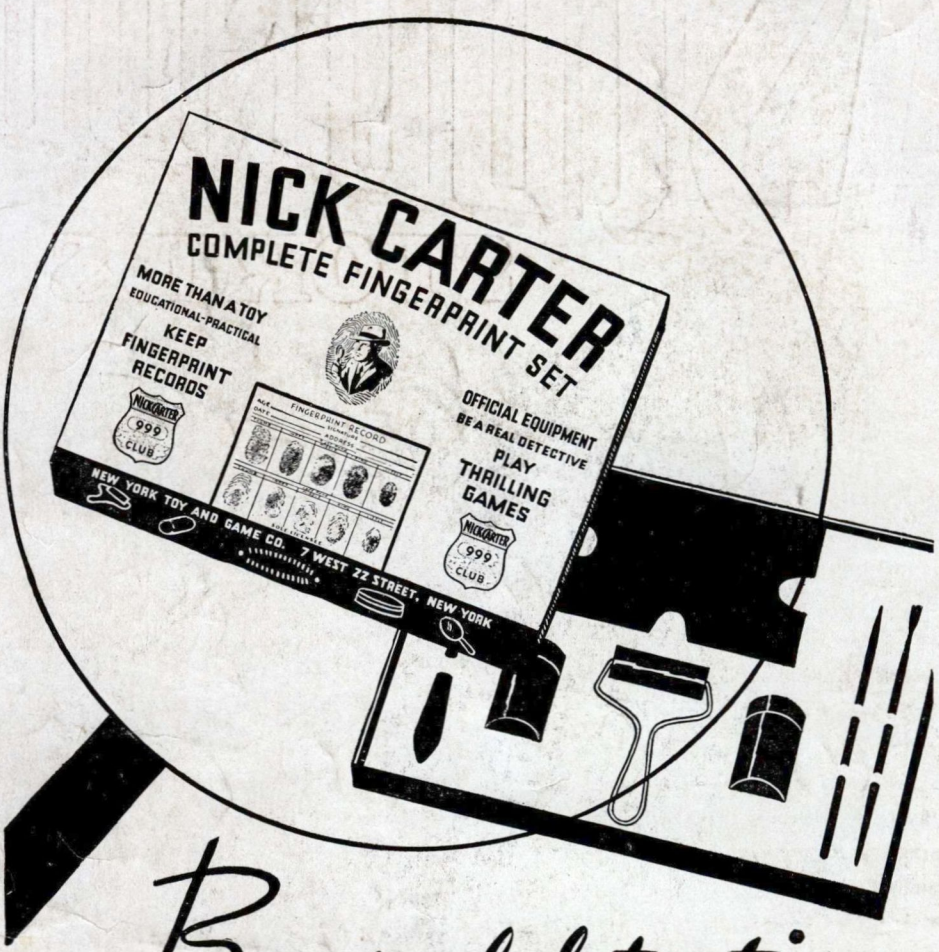
The SKY LARK of Valeron

by EDWARD E. SMITH, Ph.D.



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Do you see my point? Thus we offer you THE SKYLARK OF VALERON in this issue. Thus we change our type and gain more words; increase the space allowed for Brass Tacks; swing the trend of our illustrations to conform to your expressed desires. And that is science!

Science is the selection and classification of knowledge. Superscience is the projection of inventive thought into the realm of unexplored realism. So we bring to you a superscience magazine which is being developed scientifically. Studied intelligence alone develops worth-while reading.

Just as a plant or flower develops to maturity and then decays, so science-fiction had passed its supreme moment when Astounding Stories came to Street & Smith nearly a year ago. With the transition it stepped into a new cycle of life. Something glorious and fine remained from the old magazine—a tradition that we believed in. And like the first green sprouts of a plant peeking through the soil, the new, young magazine grew from the strength—the bulb—which was the old.

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You may remember that in our first Brass Tacks there were few complimentary letters (of course you could not see our plans); but what a change there has been in their tone as our growth has become clear! I know every one does not like every story equally well, but it is a truth that for every letter calling a story poor, we get two calling it fine—and in the majority of cases the approval is unanimous.

I'm sort of talking to you informally to-day, so we can get a little closer to each other. There are new plans maturing which will please you. Our magazine has a long period of development ahead before it reaches its supreme moment of full maturity. Who knows but what it may be three years—or five?

But I am going to repeat, once more, my request to each of you who has not already complied to find a new buyer for Astounding. It will help me tremendously to keep going forward until the development of our magazine surpasses anything ever before attempted in science-fiction. ——*The Editor.*

The SKYLARK of VALERON

Part One

by EDWARD E. SMITH, Ph.D.

Illustrated by Elliot Dold

The dummy that was DuQuesne whirled, snarling, and its automatic pistol and that of its fellow dummy were leaping out when a magnetic force snatched away their weapons and a heat ray of prodigious power reduced the effigies to two small piles of gray ashes. And DuQuesne, motionless inside his space suit, waited——

PROLOGUE

"MOTHER-R-R!" A sturdy, auburn-haired urchin of twelve —Richard Ballinger Seaton the fourteen hundred and seventy-first— turned to the queenly young matron who was his mother as the viewing area before them went blank "You said that as soon as I was old enough you would let me see the rest of the 'Exploits of Seaton One.' Now grandfather's the chief of the Galactic Council, and I'm twelve, and I'm old enough."

"Perhaps you are, son." Into the beautiful eyes of the young woman came that indefinable, indescribable something; the knowledge that her oldest was

no longer a baby. "Tell me the story as it is run for the holiday, and I shall see."

"Richard Ballinger Seaton the First was a Ph. D. in chemistry," the boy began. "He lived in the city of Washington, in what was then the United States of America. He was born——"

"Never mind dates and such things, sonny. It would take too long to give all the details. I just want to make sure that you really understand the story —conditions were *so* different then from what they are now."

"Well, Seaton One discovered Rovolon, which he called 'X' metal at first. He found out that it would turn copper into energy, and he and Martin Reynolds Crane One built the very first space ship that was ever known. But the World Steel Corporation wanted all the Rovolon that Seaton had found; so Dr. DuQuesne, a chemist of theirs, and a kind of a spy named Perkins, tried to steal it away from him. They got a little of it, but it exploded some copper and killed a lot of people.

"When Seaton heard about the explosion he found out that some of his Rovolon was gone, and they hired some detectives and had an awful time. A lot more people were killed, and a Japanese assistant of Crane's, named Shiro, was almost killed, too. Then they went to work and invented a lot of new instruments, such as a compass that pointed at any one thing forever; and attractors and repellers and rays and screens and explosives and lots of things that are good yet.

"This DuQuesne tried for a long time to get the Rovolon and couldn't, so they built a space ship from Seaton's plans that they stole, and he carried off Dorothy Vaneman and Margaret Spencer, the girls that Seaton One and Crane One were going to marry—and they did marry them, afterward, too. Well, Dorothy kicked Perkins in the stomach, and the space ship ran away and kept on going until it got caught by the attraction of the Dark Mass that the First of Energy has always had so much trouble with, and while they were falling toward it that Perkins went crazy and tried to kill Margaret, but DuQuesne killed him instead, and then Seaton One caught up with them and rescued them and——"

"Just a minute, son; there is no great hurry. How did Seaton One get way out there?"

"Well, they had their big new space ship, the *Skylark of Space,* all built by then, and Seaton One had an object-compass set on DuQuesne, because he'd been watching him a long time since he'd been making lots of trouble for him. So Seaton One and Crane One followed the object-compass and found them and rescued them all but Perkins, because he was dead already.

"They had an awful time getting away from the Dark Mass, but they did it, but they were about out of copper, so they had to hunt up a planet that had some. They landed on one that dinosaurs and things like that lived on, and got a lot more Rovolon, but didn't find any copper, so they hunted up more planets. One had poison gas instead of air, and another had people that were pure intellectuals, so that they had bodies whenever they wanted to, but not all the time. They pretty nearly dematerialized Seaton One and all the rest of them, and we're awfully glad they didn't.

"Well, anyway, they got away, but they had an awful time, and after a while they saw the green suns of the Central System. There's lots of copper there, you know; so much that Grandfather Seaton wouldn't let me swim in the ocean last year when we were there because it was copper solution and it would have made me sick. They went to Osnome first, one of the inside worlds, and landed in a country named Mardonale.

"They were bad people and wanted

to kill Seaton One and steal his ship, and they had already captured Dunark, the Kofedix or crown prince of the other nation, Kondal. Then Dunark helped Seaton One get away, and they all went home with Dunark. But the *Skylark* was pretty nearly ruined in the battle they had getting away from Mardonale, so Seaton One and Dunark built it over out of arenak, which was much better than the funny, soft steel they used to use in the old days. Of course, arenak doesn't amount to much beside the inoson we have now, but even Seaton One didn't know anything about inoson then.

"Then they got married. Seaton married Dorothy, and they're our great-great—fourteen hundred and seventy times—grandparents. Crane married Margaret, and they're awfully famous, too. And Shiro is, too, especially in Asiatica. Well, anyway, after they got married they had a fight with a monster Karlon, and were just going to start back here for Tellus when the whole Mardonalian fleet attacked Kondal. The *Skylark Two* beat them all, and DuQuesne helped, too, and then of course Dunark's father was Karfedix or emperor of the whole planet of Osnome, and he made Seaton One the overlord. Then they came back home. Seaton One and Crane One didn't know just what to do with DuQuesne, but he jumped out of *Skylark Two* in a parachute and got away.

"THEY hadn't been back on Tellus very long when Dunark came to visit them, from Osnome, after some salt which they needed to make arenak, and some more Rovolon. He was going to blow up another planet of the Central Sun because they were having a war. But Seaton One didn't have enough Rovolon, so both *Skylark Two* and the *Kondal* started out to go to the 'X' planet after some, and on the way there they were attacked by a space ship of the Fenachrone, who were a race of terrible men who were going to conquer the whole universe. The Fenachrone blew up the *Kondal,* and pretty nearly destroyed the *Skylark,* too, but Seaton One could use zones of force as well as they could—I don't know much about zones of force because they're in advanced physics, but they're barriers in the ether and space ships use them yet because nothing above the fifth level can get through them—and finally Seaton One cut the Fenachrone ship all up into little pieces. Then he rescued Dunark, and one of his wives named Sitar, but one of the bad men got away without being killed and DuQuesne picked him up——"

"But you haven't said anything about DuQuesne being out there, sonny."

"Well, he was. He kept on trying to get the Rovolon away from Seaton One, but couldn't, so he took his own space ship and went to Osnome. You see, while he was there he had found out something about the Fenachrone and was going to join them. Well, he got to Osnome and stole a better space ship than the one he had and started out to go to the Fenachrone System, but on the way he passed close to where *Skylark Two* was fighting the big Fenachrone ship, which was the flagship *Y427W*. The chief engineer of the ship got away, and DuQuesne rescued him, and he showed DuQuesne how to get to the Fenachrone world, and he installed his own super-drive on the *Violet,* which was the name of DuQuesne's ship. But when they got there something funny happened. A Fenachrone patrol ship apparently captured the *Violet,* and they burned up what they thought were DuQuesne and Loring—this Loring was DuQuesne's helper—and the engineer reported over the visi-recorder everything that had happened to the flagship, and Seaton and Crane were listening in on their projector. Now's the funny part. Some of the

visirecorder report was right, but some of it didn't really happen that way at all, because Dr. DuQuesne knew all the time what was going——"

"You are getting ahead of the story, sonny. You have heard that part, of course, but you haven't actually seen the record of it yet."

"Well, anyway, Seaton One found out the Fenachrone's plans by reading their brains with a mechanical educator, and he made Dunark's people make peace with the other planet, the one that they were going to blow up. He knew from some old legends that there was a race of green men somewhere in the Central System that knew everything, so he went hunting for them. They went to Dasor first, where those funny porpoise men live, and a Dasorian named Sacner Carfon was councilor then. A Sacner Carfon is councilor there yet, too, and I beat his boy shooting a ray, but he beat me all hollow swimming, because he's got web feet and hands. The Dasorians told Seaton One where to go, and that's how they found Norlamin, where the oldest and wisest men in the whole Galaxy live. Rovol, the First of Rays, and Drasnik, the First of Psychology, and Caslor, the First of Mechanism, and lots of the other Firsts of Norlamin helped them build things.

"Oh, yes; I almost forgot about the way the Norlaminian scientists learn things. When one of them gets old he makes a record of his brain on a tape, and when his son takes his place he just transfers all his knowledge to the son's brain with a mechanical educator, and then he—the son, I mean—knows everything that every specialist in that line ever did find out, and he goes on from there. Rovol and Drasnik and some of the others gave Seaton One and Crane One copies of their own brains that way, and that's why they knew so much. And then they built a projector that would take images of themselves clear across the Galaxy in a couple of seconds on fifth-order rays, and into the middle of suns and anywhere else they wanted to be or work, and then they built *Skylark Three,* a space ship about five kilometers long. Not so much these days, of course, but she was the biggest thing in the ether then.

"But by that time the Fenachrone fleet had started out to conquer the Galaxy, and Seaton One and Crane One and all the other Ones and the Firsts of Norlamin hunted them up with the projector and blew them up by exploding their power bars. which were made of copper instead of uranium, like *Three* used. And then Dunark blew up the whole Fenachrone planet, so that they'd never make any more trouble, but one Fenachrone ship got away and started out for another Galaxy, 'way out of range of the projector. So Seaton One chased it and caught it out in space, halfway to the other Galaxy. They had a terrible battle, but Seaton One blew it up and the picture stopped, and I want to see some more of the 'Exploits,' mother, please!"

"Very well told, son—I believe that you are old enough to follow One and his friends of ancient times. You will have them next year, anyway, in your history classes, and you might as well see them now; particularly since it is our own family history as well as that of civilization." The young woman pressed a contact in the arm of her chair and spoke:

"Central Library of History, please. . . . Mrs. R. B. Seaton fourteen seventy. Please put on reel three of the 'Exploits.' Wave point one nine four six. . . . Thank you."

I.

DAY AFTER DAY a spherical space ship of aranak tore through the illimitable reaches of the interstellar void. She had once been a war vessel of Osnome; now, rechristened the

Violet, she was bearing two Terrestrials and a Fenachrone—Dr. Marc C. DuQuesne of World Steel, "Baby Doll" Loring, his versatile and accomplished assistant, and the squat and monstrous engineer of the flagship *Y427W*—from the Green System toward the Solar System of the Fenachrone. The mid-point of the stupendous flight had long since been passed; the *Violet* had long been "braking down" with a negative acceleration of five times the velocity of light.

Much to the surprise of both DuQuesne and Loring, their prisoner had not made the slightest move against them. He had thrown all the strength of his supernaturally powerful body and all the resources of his gigantic brain into the task of converting the atomic motors of the *Violet* into the space-annihilating drive of his own race. This drive, affecting alike as it does every atom of substance within the radius of action of the power bar, entirely nullifies the effect of acceleration, so that the passengers feel no motion whatever, even when the craft is accelerating at maximum—and that maximum is almost three times as great as the absolutely unbearable full power of the *Skylark of Space.*

The engineer had not shirked a single task, however arduous. And, once under way, he had nursed those motors along with every artifice known to his knowing clan; he had performed such prodigies of adjustment and tuning as to raise by a full two per cent their already inconceivable maximum acceleration. And this was not all. After the first moment of rebellion, he did not even once attempt to bring to bear the almost irresistible hypnotic power of his eyes; the immense, cold, ruby-lighted projectors of mental energy which, both men knew, were awful weapons indeed. Nor did he even once protest against the attractors which were set upon his giant limbs.

Immaterial bands, these, whose slight force could not be felt unless the captor so willed. But let the prisoner make one false move, and those tiny beams of force would instantly become copper-driven tornadoes of pure energy, hurling the luckless body against the wall of the control room and holding him motionless there, in spite of the most terrific exertions of his mighty body.

DuQuesne lay at ease in his seat; rather, scarcely touching the seat, he floated at ease in the air above it. His black brows were drawn together, his black eyes were hard as he studied frowningly the Fenachrone engineer. As usual, that worthy was half inside the power plant, coaxing those mighty motors to do even better than their prodigious best.

Feeling his companion's eyes upon him, the doctor turned his inscrutable stare upon Loring, who had been studying his chief even as DuQuesne had been studying the outlander. Loring's cherubic countenance was as pinkly innocent as ever, his guileless blue eyes as calm and untroubled; but DuQuesne, knowing the man as he did, perceived an almost imperceptible tension and knew that the killer also was worried.

"What's the matter, Doll?" The saturnine scientist smiled mirthlessly. "Afraid I'm going to let that ape slip one over on us?"

"Not exactly." Loring's slight tenseness, however, disappeared. "It's your party, and anything that's all right with you tickles me half to death. I have known all along you knew that that bird there isn't working under compulsion. You know as well as I do that nobody works that way because they're made to. He's working for himself, not for us, and I had just begun to wonder if you weren't getting a little late in clamping down on him."

"Not at all—there are good and sufficient reasons for this apparent delay. I am going to clamp down on him in exactly"—DuQuesne glanced at his

wrist watch—"fourteen minutes. But you're keen—you've got a brain that really works—maybe I'd better give you the whole picture."

DuQuesne, approving thoroughly of his iron-nerved, cold-blooded assistant, voiced again the thought he had expressed once before, a few hours out from Earth; and Loring answered as he had then, in almost the same words—words which revealed truly the nature of the man:

"Just as you like. Usually I don't want to know anything about anything, because what a man doesn't know he can't be accused of spilling. Out here, though, maybe I should know enough about things to act intelligently in case of a jam. But you're the doctor—if you'd rather keep it under your hat, that's all right with me, too. As I've said before, it's your party."

"Yes; he certainly is working for himself." DuQuesne scowled blackly. "Or, rather, he thinks he is. You know I read his mind back there, while he was unconscious. I didn't get all I wanted to, by any means—he woke up too soon—but I got a lot more than he thinks I did.

"They have detector zones, 'way out in space, all around their world, that nothing can get past without being spotted; and patrolling those zones there are scout ships, carrying armament to stagger the imagination. I intend to take over one of those patrol ships and by means of it to capture one of their first-class battleships. As a first step I'm going to hypnotize that ape and find out absolutely everything that he knows. When I get done with him, he'll do exactly what I tell him to, and nothing else."

"Hypnotize him?" Curiosity was awakened in even Loring's incurious mind at this unexpected development. "I didn't know that was one of your specialties."

"It wasn't until recently, but the Fenachrone are all past masters, and I learned about it from his brain. Hypnosis is a wonderful science. The only drawback is that his mind is a lot stronger than mine. However, I have in my kit, among other things, a tube of something that will cut him down to my size."

"Oh, I see—pentabarb." With this hint, Loring's agile mind grasped instantly the essentials of DuQuesne's plan. "That's why you had to wait so long, then, to take steps. Pentabarb kills in twenty-four hours, and he can't help us steal the ship after he's dead."

"Right! One milligram, you know, will make a gibbering idiot out of any human being; but I imagine that it will take three or four times that much to soften *him* down to the point where I can work on him the way I want to. As I don't know the effects of such heavy dosages, since he's not really human, and since he must be alive when we go through their screens, I decided to give him the works exactly six hours before we are due to hit their outermost detector. That's about all I can tell you right now; I'll have to work out the details of seizing the ship after I have studied his brain more thoroughly."

PRECISELY at the expiration of the fourteen allotted minutes, DuQuesne tightened the attractor beams, which had never been entirely released from their prisoner; thus pinning him helplessly, immovably, against the wall of the control room. He then filled a hypodermic syringe and moved the mechanical educator nearer the motionless, although violently struggling, creature. Then, avoiding carefully the baleful outpourings of those flame-shot volcanoes of hatred that were the eyes of the Fenachrone, he set the dials of the educator, placed the headsets, and drove home the needle's hollow point. One milligram of the diabolical compound was ab-

sorbed, without appreciable lessening of the blazing defiance being hurled along the educator's wires. One and one half—two milligrams—three—four—five——

That inhumanly powerful mind at last began to weaken, but it became entirely quiescent only after the administration of the seventh milligram of that direly potent drug.

"Just as well that I allowed only six hours." DuQuesne sighed in relief as he began to explore the labyrinthine intricacies of the frightful brain now open to his gaze. "I don't see how any possible form of life can hold together long under seven milligrams of that stuff."

He fell silent and for more than an hour he studied the brain of the engineer, concentrating upon the several small portions which contained knowledge of most immediate concern. Then he removed the headsets.

"His plans were all made," he informed Loring coldly, "and so are mine, now. Bring out two full outfits of clothing—one of yours and one of mine. Two guns, belts, and so on. Break out a bale of waste, the emergency candles, and all that sort of stuff you can find."

DuQuesne turned to the Fenachrone, who stood utterly lax, inanimate, and stared deep into those now dull and expressionless eyes.

"You," he directed crisply, "will build at once, as quickly as you can, two dummies which will look exactly like Loring and myself. They must be lifelike in every particular, with faces capable of expressing the emotions of surprise and of anger, and with right arms able to draw weapons upon signal—*my* signal. Also upon signal their heads and bodies will turn, they will leap toward the center of the room, and they will make certain noises and utter certain words, the records of which I shall prepare. Go to it!"

"Don't you need to control him through the headsets?" asked Loring curiously.

"I may have to control him in detail when we come to the really fine work, later on," DuQuesne replied absently. "This is more or less in the nature of an experiment, to find out whether I have him thoroughly under control. During the last act he'll have to do exactly what I shall have told him to do, without supervision, and I want to be absolutely certain that he will do it without a slip."

"What's the plan—or maybe it's something that is none of my business?"

"No; you ought to know it, and I've got time to tell you about it now. Nothing material can possibly approach the planet of the Fenachrone without being seen, as it is completely surrounded by never less than two full-sphere detector screens; and to make assurance doubly sure our engineer there has installed a mechanism which, at the first touch of the outer screen, will shoot a warning along at tight communicator beam, directly into the receiver of the nearest Fenachrone scout ship. As you already know, the smallest of those scouts can burn this ship out of the ether in less than a second."

"That's a cheerful picture. You still think we can get away?"

"I'm coming to that. We can't possibly get through the detectors without being challenged, even if I tear out all his apparatus, so we're going to use his whole plan, but for our benefit instead of his. Therefore his present hypnotic state and the dummies. When we touch that screen you and I are going to be hidden—well hidden. The dummies will be in sole charge, and our prisoner will be playing the part I have laid out for him.

"The scout ship that he calls will come up to investigate. They will bring apparatus and attractors to bear to liberate the prisoner, and the dummies will try to fight. They will be blown up or

burned to cinders almost instantly, and our little playmate will put on his space suit and be taken across to the capturing vessel. Once there, he will report to the commander.

"That officer will think the affair sufficiently serious to report it directly to headquarters. If he doesn't, this ape here will insist upon reporting it to general headquarters himself. As soon as that report is in, we, working through our prisoner here, will proceed to wipe out the crew of the ship and take it over."

"And do you think he'll really do it?" Loring's guileless face showed doubt, his tone was faintly skeptical.

"I *know* he'll do it!" The chemist's voice was hard. "He won't take any active part—I'm not psychologist enough to know whether I could drive him that far, even drugged, against an unhypnotizable subconscious or not—but he'll be carrying something along that will enable me to do it, easily and safely. But that's about enough of this chin music—we'd better start doing something."

WHILE Loring brought space clothing and weapons, and rummaged through the vessel in search of material suitable for the dummies' fabrication, the Fenachrone engineer worked rapidly at his task. And not only did he work rapidly, he worked skillfully and artistically as well. This artistry should not be surprising, for to such a mentality as must necessarily be possessed by the chief engineer of a first-line vessel of the Fenachrone, the faithful reproduction of anything capable of movement was not a question of art—it was merely an elementary matter of line, form, and mechanism.

Cotton waste was molded into shape, reënforced, and wrapped in leather under pressure. To the bodies thus formed were attached the heads, cunningly constructed of masticated fiber, plastic, and wax. Tiny motors and many small pieces of apparatus were installed, and the completed effigies were dressed and armed.

DuQuesne's keen eyes studied every detail of the startlingly lifelike, almost microscopically perfect, replicas of himself and his traveling companion.

"A good job," he commented briefly.

"Good?" exclaimed Loring. "It's perfect! Why, that dummy would fool my own wife, if I had one—it almost fools me!"

"At least, they're good enough to pass a more critical test than any they are apt to get during this coming incident."

Satisfied, DuQuesne turned from his scrutiny of the dummies and went to the closet in which had been stored the space suit of the captive. To the inside of its front protector flap he attached a small and inconspicuous flat-sided case. He then measured carefully, with a filar micrometer, the apparent diameter of the planet now looming so large beneath them.

"All right, Doll; our time's getting short. Break out our suits and test them, will you, while I give the big boy his final instructions?"

Rapidly those commands flowed over the wires of the mechanical educator, from DuQuesne's hard, keen brain into the now-docile mind of the captive. The Earthly scientist explained to the Fenachrone, coldly, precisely, and in minute detail, exactly what he was to do and exactly what he was to say from the moment of encountering the detector screens of his native planet until after he had reported to his superior officers.

Then the two Terrestrials donned their own armor of space and made their way into an adjoining room, a small armory in which were hung several similar suits and which was a veritable arsenal of weapons.

"We'll hang ourselves up on a couple of these hooks, like the rest of the suits," DuQuesne explained. "This is the only part of the performance that may be

even slightly risky, but there is no real danger that they will spot us. That fellow's message to the scout ship will tell them that there are only two of us, and we'll be out there with him, right in plain sight.

"If by any chance they should send a party aboard us they would probably not bother to search the *Violet* at all carefully, since they will already know that we haven't got a thing worthy of attention; and they would of course suppose us to be empty space suits. Therefore keep your lens shields down, except perhaps for the merest crack to see through, and, above all, don't move a millimeter, no matter what happens."

"But how can you manipulate your controls without moving your hands?"

"I can't; but my hands will not be in the sleeves, but inside the body of the suit—shut up! Hold everything—there's the flash!"

THE FLYING vessel had gone through the zone of feeble radiations which comprised the outer detector screen of the Fenachrone. But though tenuous, that screen was highly efficient, and at its touch there burst into frenzied activity the communicator built by the captive to be actuated by that very impulse. It had been built during the long flight through space, and its builder had thought that its presence would be unnoticed and would remain unsuspected by the Terrestrials.

Now automatically put into action, it laid a beam to the nearest scout ship of the Fenachrone and into that vessel's receptors it passed the entire story of the *Violet* and her occupants. But DuQuesne had not been caught napping. Reading the engineer's brain and absorbing knowledge from it, he had installed a relay which would flash to his eyes an inconspicuous but unmistakable warning of the first touch of the screen of the enemy. The flash had come—they had penetrated the outer lines of the monstrous civilization of the dread and dreaded Fenachrone.

In the armory DuQuesne's hands moved slightly inside his shielding armor, and out in the control room the dummy that was also, to all outward seeming, DuQuesne moved and spoke. It tightened the controls of the attractors, which had never been entirely released from their prisoner, thus again pinning the Fenachrone helplessly against the wall.

"Just to be sure you don't try to start anything," it explained coldly, in DuQuesne's own voice and tone. "You have done well so far, but I'll run things myself from now on, so that you can't steer us into a trap. Now tell me exactly how to go about getting one of your vessels. After we get it I'll see about letting you go."

"Fools, you are too late!" the prisoner roared exultantly. "You would have been too late, even had you killed me out there in space and had fled at your utmost acceleration. Did you but know it you are as dead, even now—our patrol is upon you!"

The dummy that was DuQuesne whirled, snarling, and its automatic pistol and that of its fellow dummy were leaping out when an awful acceleration threw them flat upon the floor, a magnetic force snatched away their weapons, and a heat ray of prodigious power reduced the effigies to two small piles of gray ash. Immediately thereafter a beam of force from the patrolling cruiser neutralized the attractors bearing upon the captive and, after donning his space suit, he was transferred to the Fenachrone vessel.

Motionless inside his space suit, DuQuesne waited until the airlocks of the Fenachrone vessel had closed behind his erstwhile prisoner; waited until the engineer had told his story to Fenal, his emperor, and to Fenimal, his general in command; waited until the communicator circuit had been broken and the

hypnotized, drugged, and already dying creature had turned as though to engage his fellows in conversation. Then only did the saturnine scientist act. His finger closed a circuit, and in the Fenachrone vessel, inside the front protector flap of the discarded space suit, the flat case fell apart noiselessly and from it there gushed forth volume upon volume of colorless and odorless, but intensely lethal, vapor.

"Just like killing goldfish in a bowl." Callous, hard, and cold, DuQuesne exhibited no emotion whatever; neither pity for the vanquished foe nor elation at the perfect working out of his plans. "Just in case some of them might have been wearing suits, for emergencies, I had some explosive copper ready to detonate, but this makes it much better—the explosion might have damaged something we want."

And aboard the vessel of the Fenachrone, DuQuesne's deadly gas diffused with extreme rapidity, and as it diffused, the hellish crew to the last man dropped in their tracks. They died not knowing what had happened to them; died with no thought of even attempting to send out an alarm; died not even knowing that they died.

II.

"CAN YOU OPEN the airlocks of that scout ship from the outside, doctor?" asked Loring, as the two adventurers came out of the armory into the control room where DuQuesne, by means of the attractors, began to bring the two vessels together.

"Yes. I know everything that that engineer of a first-class battleship knew. To him, one of these little scouts was almost beneath notice, but he did know that much about them—the outside controls of all Fenachrone ships work the same way."

Under the urge of the attractions, the two ships of space were soon door to door. DuQuesne set the mighty beams to lock the craft immovably together and both men stepped into the *Violet's* airlock. Pumping back the air, DuQuesne opened the outer door, then opened both outer and inner doors of the scout.

As he opened the inner door the poisoned atmosphere of the vessel screamed out into space, and as soon as the frigid gale had subsided the raiders entered the control room of the enemy craft. Hardened and conscienceless killer though Loring was, the four bloated, ghastly objects that had once been men gave him momentary pause.

"Maybe we shouldn't have let the air out so fast," he suggested, tearing his gaze away from the grisly sight.

"The brains aren't hurt, and that's all I care about." Unmoved, DuQuesne opened the air valves wide, and not until the roaring blast had scoured every trace of the noxious vapor from the whole ship did he close the airlock doors and allow the atmosphere to come again to normal pressure and temperature,

"Which ship are you going to use—theirs or our own?" asked Loring, as he began to remove his cumbersome armor.

"I don't know yet. That depends largely upon what I find out from the brain of the lieutenant in charge of this patrol boat. There are two methods by which we can capture a battleship; one requiring the use of the *Violet*, the other the use of this scout. The information which I am about to acquire will enable me to determine which of the two plans entails the lesser amount of risk.

"There is a third method of procedure, of course; that is, to go back to Earth and duplicate one of their battleships ourselves, from the knowledge I shall have gained from their various brains concerning the apparatus, mechanisms, materials, and weapons of the Fenachrone. But that would take a long time and would be far from certain of success, because there would al-

most certainly be some essential facts that I would not have secured. Besides, I came out here to get one of their first-line space ships, and I intend to do it."

With no sign of distaste DuQuesne coupled his brain to that of the dead lieutenant of the Fenachrone through the mechanical educator, and quite as casually as though he were merely giving Loring another lesson in Fenachrone matters did he begin systematically to explore the intricate convolutions of that fearsome brain. But after only ten minutes' study he was interrupted by the brazen clang of the emergency alarm. He flipped off the power of the educator, discarded his headset, acknowledged the call, and watched the recorder as it rapped out its short, insistent message.

"Something is going on here that was not on my program," he announced to the alert but quiescent Loring. "One should always be prepared for the unexpected, but this may run into something cataclysmic. The Fenachrone are being attacked from space, and all armed forces have been called into a defensive formation—Invasion Plan XB218, whatever that is. I'll have to look it up in the code."

THE DESK of the commanding officer was a low, heavily built cabinet of solid metal. DuQuesne strode over to it, operated rapidly the levers and dials of its combination lock, and took from one of the compartments the "Code"—a polygonal framework of engraved metal bars and sliders, resembling somewhat an Earthly multiplex squirrel-cage slide rule.

"X — B — Two — One—Eight." Although DuQuesne had never before seen such an instrument, the knowledge taken from the brains of the dead officers rendered him perfectly familiar with it, and his long and powerful fingers set up the indicated defense plan as rapidly and as surely as those of any Fenachrone could have done. He revolved the mechanism in his hands, studying every plane surface, scowling blackly in concentration.

"Munition plants—shall—so-and-so —— We don't care about that. Reserves — zones — ordnance — commissary—defensive screens—— Oh, here we are! Scout ships. Instead of patrolling a certain volume of space, each scout ship takes up a fixed post just inside the outer detector zone. Twenty times as many on duty, too—enough so that they will be only about ten thousand miles apart—and each ship is to lock high-power detector screens and visiplate and recorder beams with all its neighbors.

"Also, there is to be a first-class battleship acting as mother ship, protector, and reserve for each twenty-five scouts. The nearest one is to be—— Let's see, from here that would be only about twenty thousand miles over that way and about a hundred thousand miles down."

"Does that change your plans, chief?"

"Since my plans were not made, I cannot say that it does—it changes the background, however, and introduces an element of danger that did not previously exist. It makes it impossible to go out through the detector zone—but it was practically impossible before, and we have no intention of going out, anyway, until we possess a vessel powerful enough to go through any barrage they can lay down. On the other hand, there is bound to be a certain amount of confusion in placing so many vessels, and that fact will operate to make the capture of our battleship much easier than it would have been otherwise."

"What danger exists that wasn't there before?" demanded Loring.

"The danger that the whole planet may be blown up," DuQuesne returned bluntly. "Any nation or race attacking from space would of course have

atomic power, and any one with that power could volatilize any planet by simply dropping a bomb on it from open space. They might want to colonize it, of course, in which case they wouldn't destroy it, but it is always safest to plan for the worst possible contingencies."

"How do you figure on doing us any good if the whole world explodes?" Loring lighted a cigarette, his hand steady and his face pinkly unruffled. "If she goes up, it looks as if we go out, like that—puff!" And he blew out the match.

"Not at all, Doll," DuQuesne reassured him. "An atomic explosion starting on the surface and propagating downward would hardly develop enough power to drive anything material much, if any, faster than light, and no explosion wave, however violent, can exceed that velocity. The *Violet*, as you know, although not to be compared with even this scout as a fighter, has an acceleration of five times that, so that we could outrun the explosion in her. However, if we stay in our own ship, we shall certainly be found and blown out of space as soon as this defensive formation is completed.

"On the other hand, this ship carries full Fenachrone power of offense and defense, and we should be safe enough from detection in it, at least for as long a time as we shall need it. Since these small ships are designed for purely local scout work, though, they are comparatively slow and would certainly be destroyed in any such cosmic explosion as is manifestly a possibility. That possibility is very remote, it is true, but it should be taken into consideration."

"So what? You're talking yourself around a circle, right back to where you started from."

"Only considering the thing from all angles." DuQuesne was unruffled. "We have lots of time, since it will take them quite a while to perfect this formation. To finish the summing up—we want to use this vessel, but is it safe? It is. Why? Because the Fenachrone, having had atomic energy themselves for a long time, are thoroughly familiar with its possibilities and have undoubtedly perfected screens through which no such bomb could penetrate.

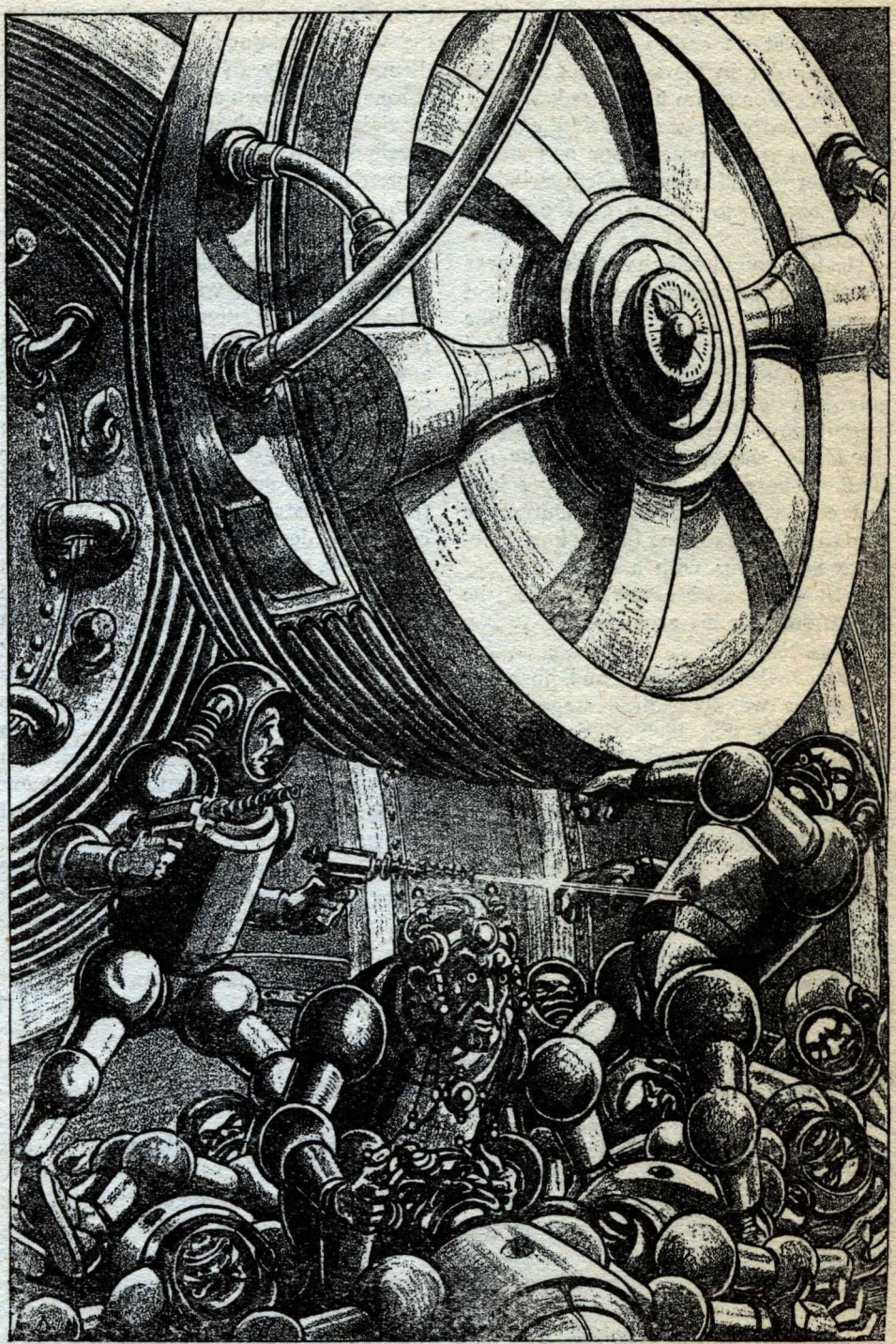
"Furthermore, we can install the high-speed drive in this ship in a few days—I gave you all the dope on it over the educator, you know—so that we'll be safe, whatever happens. That's the safest plan, and it will work. So you move the stores and our most necessary personal belongings in here while I'm figuring out an orbit for the *Violet*. We don't want her anywhere near us, and yet we want her to be within reaching distance while we are piloting this scout ship of ours to the place where she is supposed to be in Plan XB218."

"What are you going to do that for—to give them a chance to knock us off?"

"No. I need a few days to study these brains, and it will take a few days for that battleship mother ship of ours to get into her assigned position, where we can steal her most easily." DuQuesne, however, did not at once remove his headset, but remained standing in place, silent and thoughtful.

"Uh-huh," agreed Loring. "I'm thinking the same thing you are. Suppose that it *is* Seaton that's got them all hot and bothered this way?"

"The thought has occurred to me several times, and I have considered it at some length," DuQuesne admitted at last. "However, I have concluded that it is not Seaton. For if it is, he must have a lot more stuff than I think he has. I do not believe that he can possibly have learned that much in the short time he has had to work in. I may be wrong, of course; but the immediately necessary steps toward the seizure of that battleship remain unchanged whether I am right or wrong; or whether Seaton was the cause of this disturbance."



DuQuesne clamped the headset into place, shot power into it and transferred to his own brain an entire section of the brain of the dead Fenachrone.

WHEN the conversation was thus definitely at an end, Loring again incased himself in his space suit and set to work. For hours he labored, silently and efficiently, at transferring enough of their Earthly possessions and stores to render possible an extended period of living aboard the vessel of the Fenachrone.

He had completed that task and was assembling the apparatus and equipment necessary for the rebuilding of the power plant before DuQuesne finished the long and complex computations involved in determining the direction and magnitude of the force required to give the *Violet* the exact trajectory he desired. The problem was finally solved and checked, however, and DuQuesne rose to his feet, closing his book of nine-place logarithms with a snap.

"All done with *Violet,* Doll?" he asked, donning his armor.

"Yes."

"Fine! I'll go aboard and push her off, after we do a little stage-setting here. Take that body there—I don't need it any more, since he didn't know much of anything, anyway—and toss it into the nose compartment. Then shut that bulkhead door, tight. I'm going to drill a couple of holes through there from the *Violet* before I give her the gun."

"I see—going to make us *look* disabled, whether we are or not, huh?"

"Exactly! We've got to have a good excuse for our visirays being out of order. I can make reports all right on the communicator, and send and receive code messages and orders, but we certainly couldn't stand a close-up inspection on a visiplate. Also, we've got to have some kind of an excuse for signaling to and approaching our mother battleship. We will have been hit and punctured by a meteorite. Pretty thin excuse, but it probably will serve for as long a time as we will need."

After DuQuesne had made sure that the small compartment in the prow of the vessel contained nothing of use to them, the body of one of the Fenachrone was thrown carelessly into it, the air-tight bulkhead was closed and securely locked, and the chief marauder stepped into the airlock.

"As soon as I get her exactly on course and velocity, I'll step out into space and you can pick me up," he directed briefly, and was gone.

In the *Violet's* engine room DuQuesne released the anchoring attractor beams and backed off to a few hundred yards' distance. He spun a couple of wheels briefly, pressed a switch, and from the *Violet's* heaviest needle-ray projector there flashed out against the prow of the scout patrol a pencil of incredibly condensed destruction.

Dunark, the crown prince of Kondal, had developed that stabbing ray as the culminating ultimate weapon of ten thousand years of Osnomian warfare; and, driven by even the comparatively feeble energies known to the denizens of the Green System before Seaton's advent, no known substance had been able to resist for more than a moment its corrosively, annihilatingly poignant thrust.

And now this furious stiletto of pure energy, driven by the full power of four hundred pounds of disintegrating atomic copper, at this point-blank range, was hurled against the mere inch of transparent material which comprised the skin of the tiny cruiser. DuQuesne expected no opposition, for with a beam less potent by far he had consumed utterly a vessel built of arenak—arenak, that Osnomian synthetic which is five hundred times as strong, tough, and hard as Earth's strongest, toughest, or hardest alloy steel.

Yet that annihilating needle of force struck that transparent surface and rebounded from it in scintillating torrents of fire. Struck and rebounded, struck and clung; boring in almost imperceptible

tibly as its irresistible energy tore apart, electron by electron, the surprisingly obdurate substance of the cruiser's wall. For that substance was the ultimate synthetic—the one limiting material possessing the utmost measure of strength, hardness, tenacity, and rigidity theoretically possible to any substance built up from the building blocks of ether-borne electrons. This substance, developed by the master scientists of the Fenachrone, was in fact identical with the Norlaminian synthetic metal, inoson, from which Roval and his aids had constructed for Seaton his gigantic ship of space—*Skylark Three.*

FOR FIVE long minutes DuQuesne held that terrific beam against the point of attack, then shut it off; for it had consumed less than half the thickness of the scout patrol's outer skin. True, the focal area of the energy was an almost invisibly violet glare of incandescence, so intensely hot that the concentric shading off through blinding white, yellow, and bright-red heat brought the zone of dull red far down the side of the vessel; but that awful force had had practically no effect upon the spaceworthiness of the stanch little craft.

"No use, Loring!" DuQuesne spoke calmly into the transmitter inside his face plate. True scientist that he was, he neither expressed nor felt anger or bafflement when an idea failed to work, but abandoned it promptly and completely, without rancor or repining. "No possible meteorite could puncture that shell. Stand by!"

He inspected the power meters briefly, made several readings through the filar micrometer of number six visiplate, and checked the vernier readings of the great circles of the gyroscopes against the figures in his notebook. Then, assured that the *Violet* was following precisely the predetermined course, he entered the airlock, waved a bloated arm at the watchful Loring, and coolly stepped off into space. The heavy outer door clanged shut behind him, and the globular ship of space rocketed onward; while DuQuesne fell with a sickening acceleration toward the mighty planet of the Fenachrone, so many thousands of miles below.

That fall did not long endure. Loring, now a space pilot second to none, had held his vessel dead even with the *Violet;* matching exactly her course, pace, and acceleration at a distance of barely a hundred feet. He had cut off all his power as DuQuesne's right foot left the Osnomian vessel, and now falling man and plunging scout ship plummeted downward together at the same mad pace; the man drifting slowly toward the ship because of the slight energy of his step into space from the *Violet's* side and beginning slowly to turn over as he fell. So consummate had been Loring's spacemanship that the scout did not even roll; DuQuesne was still opposite her starboard airlock when Loring stood in its portal and tossed a space line to his superior. This line—a small, tightly stranded cable of fiber capable of retaining its strength and pliability in the heatless depths of space—snapped out and curled around DuQuesne's bulging space suit.

"I THOUGHT you'd use an attractor, but this is probably better, at that," DuQuesne commented, as he seized the line in a mailed fist.

"Yeah. I haven't had much practice with them on delicate and accurate work. If I had missed you with this line I could have thrown it again; but if I missed this opening with you on a beam and shaved your suit off on this sharp edge, I figured it'd be just too bad."

The two men again in the control room and the vessel once more leveled

out in headlong flight, Loring broke the silence:

"That idea of being punctured by a meteorite didn't pan out so heavy. How would it be to have one of the crew go space-crazy and wreck the boat from the inside? They do that sometimes, don't they?"

"Yes, they do. That's an idea—thanks. I'll study up on the symptoms. I have a lot more studying to do, anyway—there's a lot of stuff I haven't got yet. This metal, for instance—we couldn't possibly build a Fenachrone battleship on Earth. I had no idea that any possible substance could be so resistant as the shell of this ship is. Of course, there are many unexplored areas in these brains here, and quite a few high-class brains aboard our mother ship that I haven't even seen yet. The secret of the composition of this metal must be in some of them."

"Well, while you're getting their stuff, I suppose I'd better fly at that job of rebuilding our drive. I'll have time enough all right, you think?"

"Certain of it. I have learned that their system is ample—automatic and foolproof. They have warning long before anything can possibly happen. They can, and do, spot trouble over a light-week away, so their plans allow one week to perfect their defenses. You can change the power plant over in four days, so we're well in the clear on that. I may not be done with my studies by that time, but I shall have learned enough to take effective action. You work on the drive and keep house. I will study Fenachrone science and so on, answer calls, make reports, and arrange the details of what is to happen when we come within the volume of space assigned to our mother ship."

THUS for days each man devoted himself to his task. Loring rebuilt the power plant of the short-ranging scout patrol into the terrific open-space drive of the first-line battleships and performed the simple routines of their Spartan housekeeping. DuQuesne cut himself short on sleep and spent every possible hour in transferring to his own brain every worth-while bit of knowledge which had been possessed by the commander and crew of the patrol ship which he had captured.

Periodically, however, he would close the sending circuit and report the position and progress of his vessel, precisely on time and observing strictly all the military minutiae called for by the manual—the while watching appreciatively and with undisguised admiration the flawless execution of that stupendous plan of defense.

The change-over finished, Loring went in search of DuQuesne, whom he found performing a strenuous setting-up exercise. The scientist's face was pale, haggard, and drawn.

"What's the matter, chief?" Loring asked. "You look kind of peaked."

"Peaked is good—I'm just about bushed. This thing of getting a hundred and ninety years of solid education in a few days would hardly come under the heading of light amusement. Are you done?"

"Done and checked—O. K."

"Good! I am, too. It won't take us long to get to our destination now; our mother ship should be just about at her post by this time."

Now that the vessel was approaching the location assigned to it in the plan, and since DuQuesne had already taken from the brains of the dead Fenachrone all that he wanted of their knowledge, he threw their bodies into space and rayed them out of existence. The other corpse he left lying, a bloated and ghastly mass, in the forward compartment as he prepared to send in what was to be his last flight report to the office of the general in command of the plan of defense.

"His high-mightiness doesn't know it, but that is the last call he is going to get from this unit," DuQuesne remarked, leaving the sender and stepping over to the control board. "Now we can leave our prescribed course and go where we can do ourselves some good. First, we'll find the *Violet*. I haven't heard of her being spotted and destroyed as a menace to navigation, so we'll look her up and start her off for home."

"Why?" asked the henchman. "Thought we were all done with her."

"We probably are, but if it should turn out that Seaton is back of all this excitement, our having her may save us a trip back to the Earth. Ah, there she is, right on schedule! I'll bring her alongside and set her controls on a distance-squared decrement, so that when she gets out into space she'll have a constant velocity."

"Think she'll get out into free space through those screens?"

"They will detect her, of course, but when they see that she is an abandoned derelict and headed out of their system they'll probably let her go. It will be no great loss, of course, if they do burn her."

Thus it came about that the spherical cruiser of the void shot away from the then feeble gravitation of the vast but distant planet of the Fenachrone at a frightful but constant speed. Through the outer detector screens she tore. Searching beams explored her instantly and thoroughly; but since she was so evidently a deserted hulk and since the Fenachrone cared nothing now for impediments to navigation beyond their screens, she was not pursued.

On and on she sped, her automatic controls reducing her power in exact ratio to the square of the distance attained; on and on, her automatic deflecting detectors swinging her around suns and solar systems and back upon her original right line; on and on toward the Green System, the central system of this the First Galaxy—our own native island universe.

III.

"NOW WE'LL GET ready to take that battleship." DuQuesne turned to his aid as the *Violet* disappeared from their sight. "Your suggestion that one of the crew of this ship could have gone space-crazy was sound, and I have planned our approach to the mother ship on that basis.

"We must wear Fenachrone space suits for three reasons: First, because it is the only possible way to make us look even remotely like them, and we shall have to stand a casual inspection. Second, because it is general orders that all Fenachrone soldiers must wear suits while at their posts in space. Third, because we shall have lost most of our air. You can wear one of their suits without any difficulty—the surplus circumference will not trouble you very much. I, on the contrary, cannot even get into one, since they're almost a foot too short.

"I must have a suit on, though, before we board the battleship; so I shall wear my own, with one of theirs over it—with the feet cut off so that I can get it on. Since I shall not be able to stand up or to move around without giving everything away because of my length, I'll have to be unconscious and folded up so that my height will not be too apparent, and you will have to be the star performer during the first act.

"But this detailed instruction by word of mouth takes altogether too much time. Put on this headset and I'll shoot you the whole scheme, together with whatever additional Fenachrone knowledge you will need to put the act across."

A brief exchange of thoughts and of ideas followed. Then, every detail made clear, the two Terrestrials donned the

space suits of the very short, but enormously wide and thick, monstrosities in semihuman form who were so bigotedly working toward their day of universal conquest.

DuQuesne picked up in his doubly mailed hands a massive bar of metal. "Ready, Doll? When I swing this we cross the Rubicon."

"It's all right by me. All or nothing—shoot the works!"

DuQuesne swung his mighty bludgeon aloft, and as it descended the telemental recorder sprang into a shower of shattered tubes, flying coils, and broken insulation. The visiray apparatus went next, followed in swift succession by the superficial air controls, the map cases, and practically everything else that was breakable; until it was clear to even the most casual observer that a madman had in truth wrought his frenzied will throughout the room. One final swing wrecked the controls of the airlocks, and the atmosphere within the vessel began to whistle out into the vacuum of space through the broken bleeder tubes.

"All right, Doll, do your stuff!" DuQuesne directed crisply, and threw himself headlong into a corner, falling into an inert, grotesque huddle.

Loring, now impersonating the dead commanding officer of the scout ship, sat down at the manual sender, which had not been seriously damaged, and in true Fenachrone fashion laid a beam to the mother ship.

"Scout ship *K3296,* Sublieutenant Grenimar commanding, sending emergency distress message," he tapped out fluently. "Am not using telemental recorder, as required by regulations, because nearly all instruments wrecked. Private 244C14, on watch, suddenly seized with space insanity, smashed air valves, instruments, and controls. Opened lock and leaped out into space. I was awake and got into suit before my room lost pressure. My other man, 397B42, was unconscious when I reached him, but believe I got him into his suit soon enough so that his life can be saved by prompt aid. 244C14 of course dead, but I recovered his body as per general orders and am saving it so that brain lesions may be studied by College of Science. Repaired this manual sender and have ship under partial control. Am coming toward you, decelerating to stop in fifteen minutes. Suggest you handle this ship with beam when approach as I have no fine controls. Signing off—*K3296.*"

"Superdreadnought *Z12Q,* acknowledging emergency distress message of scout ship *K3296,*" came almost instant answer. "Will meet you and handle you as suggested. Signing off—*Z12Q.*"

Rapidly the two ships of space drew together; the patrol boat now stationary with respect to the planet, the huge battleship decelerating at maximum. Three enormous beams reached out and, held at prow, midsection, and stern, the tiny flier was drawn rapidly but carefully against the towering side of her mother ship. The double suction seals engaged and locked; the massive doors began to open.

NOW CAME the most crucial point of DuQuesne's whole scheme. For that warship carried a complement of nearly a hundred men, and ten or a dozen of them—the lock commander, surgeons and orderlies certainly, and possibly a corps of mechanics as well—would be massed in the airlock room behind those slowly opening barriers. But in that scheme's very audacity lay its great strength—its almost complete assurance of success. For what Fenachrone, with the inborn superiority complex that was his heritage, would even dream that two members of any alien race would have the sheer, brazen effrontery to dare to attack, empty-handed, a full-manned

Class Z superdreadnought, one of the most formidable structures that had ever lifted its stupendous mass into the ether?

But DuQuesne so dared. Direct action had always been his forte. Apparently impossible odds had never daunted him. He had always planned his coups carefully, then followed those plans coldly and ruthlessly to their logical and successful conclusions. Two men could do this job very nicely, and would so do it. DuQuesne had chosen Loring with care. Therefore he lay at ease in his armor in front of the slowly opening portal, calmly certain that the iron nerves of his assassin aid would not weaken for even the instant necessary to disrupt his carefully laid plan.

As soon as the doors had opened sufficiently to permit ingress, Loring went through them slowly, carrying the supposedly unconscious man with care. But once inside the opaque walls of the lock room, that slowness became activity incarnate. DuQuesne sprang instantly to his full height, and before the clustered officers could even perceive that anything was amiss, four sure hands had trained upon them the deadliest hand weapons known to the superlative science of their own race.

Since DuQuesne was overlooking no opportunity of acquiring knowledge, the heads were spared; but as the four furious blasts of vibratory energy tore through those massive bodies, making of their every internal organ a mass of disorganized protoplasmic pulp, every Fenachrone in the room fell lifeless to the floor before he could move a hand in self-defense.

Dropping his weapons, DuQuesne wrenched off his helmet, while Loring with deft hands bared the head of the senior officer of the group upon the floor. Headsets flashed out—were clamped into place—dials were set—the scientist shot power into the tubes, transferring to his own brain an entire section of the dead brain before him.

His senses reeled under the shock, but he recovered quickly, and even as he threw off the phones Loring slammed down over his head the helmet of the Fenachrone. DuQuesne was now commander of the airlocks, and the break in communication had been of such short duration that not the slightest suspicion had been aroused. He snapped out mental orders to the distant power room, the side of the vessel opened, and the scout ship was drawn within.

"All tight, sir," he reported to the captain, and the *Z12Q* began to retrace her path in space.

DuQuesne's first objective had been attained without untoward incident. The second objective, the control room, might present more difficulty, since its occupants would be scattered. However, to neutralize this difficulty, the Earthly attackers could work with bare hands and thus with the weapons with which both were thoroughly familiar. Removing their gauntlets, the two men ran lightly toward that holy of Fenachrone holies, the control room. Its door was guarded, but DuQuesne had known that it would be—wherefore the guards went down before they could voice a challenge. The door crashed open and four heavy, long-barreled automatics began to vomit forth a leaden storm of death. Those pistols were gripped in accustomed and steady hands; those hands in turn were actuated by the ruthless brains of heartless, conscienceless, and merciless killers.

HIS SECOND and major objective gained, DuQuesne proceeded at once to consolidate his position. Pausing only to learn from the brain of the dead captain the exact technique of procedure, he summoned into the sanctum, one at a time, every member of the gigantic vessel's crew. Man after man

they came, in answer to the summons of their all-powerful captain—and man after man they died.

"Take the educator and get some of their surgeon's skill," DuQuesne directed curtly, after the last member of the crew had been accounted for. "Take off the heads and put them where they'll keep. Throw the rest of the rubbish out. Never mind about this captain—I want to study him."

Then, while Loring busied himself at his grisly task, DuQuesne sat at the captain's bench, read the captain's brains, and sent in to general headquarters the regular routine reports of the vessel.

"All cleaned up. Now what?" Loring was as spick-and-span, as calmly unruffled, as though he were reporting in one of the private rooms of the Perkins Café. "Start back to the Earth?"

"Not yet." Even though DuQuesne had captured his battleship, thereby performing the almost impossible, he was not yet content. "There are a lot of things to learn here yet, and I think that we had better stay here as long as possible and learn them; provided we can do so without incurring any extra risks. As far as actual flight goes, two men can handle this ship as well as a hundred, since her machinery is all automatic. Therefore we can run away any time.

"We could not fight, however, as it takes about thirty men to handle her weapons. But fighting would do no good, anyway, because they could outnumber us a hundred to one in a few hours. All of which means that if we go out beyond the detector screens we will not be able to come back—we had better stay here, so as to be able to take advantage of any favorable developments."

He fell silent, frowningly concentrated upon some problem obscure to his companion. At last he went to the main control panel and busied himself with a device of photo cells, coils, and kino bulbs; whereupon Loring set about preparing a long-delayed meal.

"It's all hot, chief—come and get it," the aid invited, when he saw that his superior's immediate task was done. "What's the idea? Didn't they have enough controls there already?"

"The idea is, Doll, not to take any unnecessary chances. Ah, this goulash hits the spot!" DuQuesne ate appreciatively for a few minutes in silence, then went on: "Three things may happen to interfere with the continuation of our search for knowledge. First, since we are now in command of a Fenachrone mother ship, I have to report to headquarters on the telemental recorder, and they may catch me in a slip any minute, which will mean a massed attack. Second, the enemy may break through the Fenachrone defenses and precipitate a general engagement. Third, there is still the bare possibility of that cosmic explosion I told you about.

"In that connection, it is quite obvious that an atomic explosion wave of that type would be propagated with the velocity of light. Therefore, even though our ship could run away from it, since we have an acceleration of five times that velocity, yet we could not see that such an explosion had occurred until the wave-front reached us. Then, of course, it would be too late to do anything about it, because what an atomic explosion wave would do to the dense material of this battleship would be simply nobody's business.

"We might get away if one of us had his hands actually on the controls and had his eyes and his brain right on the job, but that is altogether too much to expect of flesh and blood. No brain can be maintained at its highest pitch for any length of time."

"So what?" Loring said laconically. If the chief was not worried about these things, the henchman would not be worried, either.

"So I rigged up a detector that is both automatic and instantaneous. At the first touch of any unusual vibration it will throw in the full space drive and will shoot us directly away from the point of the disturbance. Now we shall be absolutely safe, no matter what happens.

"We are safe from any possible attack; neither the Fenachrone nor our common enemy, whoever they are, can harm us. We are safe even from the atomic explosion of the entire planet. We shall stay here until we get everything that we want. Then we shall go back to the Green System. We shall find Seaton."

His entire being grew grim and implacable, his voice became harder and colder even than its hard and cold wont. "We shall blow him clear out of the ether. The world—yes, whatever I want of the Galaxy—shall be *mine!*"

IV.

ONLY A FEW days were required for the completion of DuQuesne's Fenachrone education, since not many of the former officers of the battleship had added greatly to the already vast knowledge possessed by the Terrestrial scientists. Therefore the time soon came when he had nothing to occupy either his vigorous body or his voracious mind, and the self-imposed idleness irked his active spirit sorely.

"If nothing is going to happen out here we might as well get started back; this present situation is intolerable," he declared to Loring one morning, and proceeded to lay spy rays to various strategic points of the enormous shell of defense, and even to the sacred precincts of headquarters itself.

"They will probably catch me at this, and when they do it will blow the lid off; but since we are all ready for the break we don't care now how soon it comes. There's something gone sour somewhere, and it may do us some good to know something about it."

"Sour? Along what line?"

"The mobilization has slowed down. The first phase went off beautifully, you know, right on schedule; but lately things have slowed down. That doesn't seem just right, since their plans are all dynamic, not static. Of course general headquarters isn't advertising it to us outlying captains, but I think I can sense an undertone of uneasiness. That's why I am doing this little job of spying, to get the low-down—— Ah, I thought so! Look here, Doll! See those gaps on the defense map? Over half of their big ships are not in position—look at those tracer reports—not a battleship that was out in space has come back, and a lot of them are more than a week overdue. I'll say that's something we ought to know about——"

"Observation Officer of the *Z12Q*, attention!" snapped from the tight-beam headquarters communicator. "Cut off those spy rays and report yourself under arrest for treason!"

"Not to-day," DuQuesne drawled. "Besides, I can't—I am in command here now."

"Open your visiplate to full aperture!" The staff officer's voice was choked with fury; never in his long life had he been so grossly insulted by a mere captain of the line.

DuQuesne opened the plate, remarking to Loring as he did so; "This is the blow-off, all right. No possible way of stalling him off now, even if I wanted to; and I really want to tell them a few things before we shove off."

"Where are the men who should be at stations?" the furious voice demanded.

"Dead," DuQuesne replied laconically.

"Dead! And you have reported nothing amiss?" He turned from his own microphone, but DuQuesne and Loring could hear his savage commands:

"X1427—Order the twelfth squadron to bring in the *Z12Q!"*

He spoke again to the rebellious and treasonable observer: "And you have made your helmet opaque to the rays of this plate, another violation of the code. Take it off!" The speaker fairly rattled under the bellowing voice of the outraged general. "If you live long enough to get here, you will pay the full penalty for treason, insubordination, and conduct unbecom——"

"Oh, shut up, you yapping nincompoop!" snapped DuQuesne.

Wrenching off his helmet, he thrust his blackly forbidding face directly before the visiplate; so that the raging officer stared, from a distance of only eighteen inches, not into the cowed and frightened face of a guiltily groveling subordinate, but into the proud and sneering visage of Marc C. DuQuesne, of Earth.

And DuQuesne's whole being radiated open and supreme contempt, the most gallingly nauseous dose possible to inflict upon any member of that race of self-styled supermen, the Fenachrone. As he stared at the Earthman the general's tirade broke off in the middle of a word and he fell back speechless—robbed, it seemed, almost of consciousness by the shock.

"You asked for it—you got it—now just what are you going to do with it or about it?" DuQuesne spoke aloud, to render even more trenchantly cutting the crackling mental comments as they leaped across space, each thought lashing the officer like the biting, tearing tip of a bull whip.

"Better men than you have been beaten by overconfidence," he went on, "and better plans than yours have come to nought through underestimating the resources in brain and power of the opposition. You are not the first race in the history of the universe to go down because of false pride, and you will not be the last. You thought that my comrade and I had been taken and killed. You thought so because *I* wanted you so to think. In reality we took that scout ship, and when we wanted it we took this battleship as easily.

"We have been here, in the very heart of your defense system, for ten days. We have obtained everything that we set out to get; we have learned everything that we set out to learn. If we wished to take it, your entire planet could offer us no more resistance than did these vessels, but we do not want it.

"Also, after due deliberation, we have decided that the universe would be much better off without any Fenachrone in it. Therefore your race will of course soon disappear; and since we do not want your planet, we will see to it that no one else will want it, at least for some few eons of time to come. Think *that* over, as long as you are able to think. Good-by!"

DuQUESNE cut off the visiray with a vicious twist and turned to Loring. "Pure boloney, of course!" he sneered. "But as long as they don't know that fact it'll probably hold them for a while."

"Better start drifting for home, hadn't we? They're coming out after us."

"We certainly had." DuQuesne strolled leisurely across the room toward the controls. "We hit them hard, in a mighty tender spot, and they will make it highly unpleasant for us if we linger around here much longer. But we are in no danger. There is no tracer ray on this ship—they use them only on long-distance cruises—so they'll have no idea where to look for us. Also, I don't believe that they'll even try to chase us, because I gave them a lot to think about for some time to come, even if it wasn't true."

But DuQuesne had spoken far more truly than he knew—his "boloney" was

in fact a coldly precise statement of an awful truth even then about to be made manifest. For at that very moment Dunark of Osnome was reaching for the switch whose closing would send a detonating current through the thousands of tons of sensitized atomic copper already placed by Seaton in their deep-buried emplantments upon the noisome planet of the Fenachrone.

DuQuesne knew that the outlying vessels of the monsters had not returned to base, but he did not know that Seaton had destroyed them, one and all, in free space; he did not know that his arch-foe was the being who was responsible for the failure of the Fenachrone space ships to come back from their horrible voyages.

Upon the other hand, while Seaton knew that there were battleships afloat in the ether within the protecting screens of the planet, he had no inkling that one of those very battleships was manned by his two bitterest and most vindictive enemies, the official and completely circumstantial report of whose death by cremation he had witnessed such a few days before.

DuQuesne strolled across the floor of the control room, and in mid-step became weightless, floating freely in the air. The planet had exploded, and the outermost fringe of the wave-front of the atomic disintegration, propagated outwardly into spherical space with the velocity of light, had impinged upon the all-seeing and ever-watchful mechanical eye which DuQuesne had so carefully installed. But only that outermost fringe, composed solely of light and ultra-light, had touched that eye. The relay—an electronic beam—had been deflected instantaneously, demanding of the governors their terrific maximum of power, away from the doomed world. The governor had responded in a space of time to be measured only in fractional millionths of a second, and the vessel leaped effortlessly and almost instantaneously into an acceleration of five light-velocities, urged onward by the full power of the space-annihilating drive of the Fenachrone.

The eyes of DuQuesne and Loring had had time really to see nothing whatever. There was the barest perceptible flash of the intolerable brilliance of an exploding universe, succeeded in the very instant of its perception—yes, even before its real perception—by the utter blackness of the complete absence of all light whatever as the space drive automatically went into action and hurled the great vessel away from the all-destroying wave-front of the atomic explosion.

As has been said, there were many battleships within the screens of the distant planet, supporting a horde of scout ships according to Invasion Plan XB218; but of all these vessels and of all things Fenachrone, only two escaped the incredible violence of the holocaust. One was the immense space traveler of Ravindau the scientist which had for days been hurtling through space upon its way to a far-distant Galaxy; the other was the first-line battleship carrying DuQuesne and his killer aid, which had been snatched from the very teeth of that indescribable cosmic cataclysm only by the instantaneous operation of DuQuesne's automatic relays.

Everything on or near the planet had of course been destroyed instantly, and even the fastest battleship, farthest removed from the disintegrating world, was overwhelmed without the slightest possibility of escape. For to human eyes, staring however attentively into ordinary visiplates, these had practically no warning at all, since the wave-front of atomic disruption was propagated with the velocity of light and therefore followed very closely indeed behind the narrow fringe of visible light which heralded its coming.

Even if one of the dazed command-

ers had known the meaning of the coruscant blaze of brilliance which was the immediate forerunner of destruction, he would have been helpless to avert it, for no hands of flesh and blood, human or Fenachrone, could possibly have thrown switches rapidly enough to have escaped from the advancing wave-front of disruption; and at the touch of that frightful wave every atom of substance, alike of vessel, contents, and hellish crew, became resolved into its component electrons and added its contribution of energy to the stupendous cosmic catastrophe.

EVEN before his foot had left the floor in free motion, however, DuQuesne realized exactly what had happened. His keen eyes saw the flash of blinding incandescence announcing a world's ending and sent to his keen brain a picture; and in the instant of perception that brain had analyzed that picture and understood its every implication and connotation. Therefore he only grinned sardonically at the phenomena which left the slower-minded Loring dazed and breathless.

He continued to grin as the battleship hurtled onward through the void at a pace beside which that of any etherborne wave, even that of such a Titanic disturbance as the atomic explosion of an entire planet, was the veriest crawl.

At last, however, Loring comprehended what had happened. "Oh, it exploded, huh?" he ejaculated.

"It most certainly did." The scientist's grin grew diabolical. "My statements to them came true, even though I did not have anything to do with their fruition. However, these events prove that caution is all right in its place—it pays big dividends at times. I'm very glad, of course, that the Fenachrone have been definitely taken out of the picture."

Utterly callous, DuQuesne neither felt nor expressed the slightest sign of pity for the race of beings so suddenly snuffed out of existence. "Their removal at this time will undoubtedly save me a lot of trouble later on," he added, "but the whole thing certainly gives me furiously to think, as the French say. It was done with a sensitized atomic copper bomb, of course; but I should like very much to know who did it, and why; and, above all, how they were able to make the approach."

"Personally, I still think it was Seaton," the baby-faced murderer put in calmly. "No reason for thinking so, except that whenever anything impossible has been pulled off anywhere that I ever heard of, he was the guy that did it. Call it a hunch, if you want to."

"It may have been Seaton, of course, even though I can't really think so." DuQuesne frowned blackly in concentration. "It may have been accidental—started by the explosion of an ammunition dump or something of the kind—but I believe that even less than I do the other. It couldn't have been any race of beings from any other planet of this system, since they are all bare of life, the Fenachrone having killed off all the other races ages ago and not caring to live on the other planets themselves. No; I still think that it was some enemy from outer space; although my belief that it could not have been Seaton is weakening.

"However, with this ship we can probably find out in short order who it was, whether it was Seaton or any possible outside race. We are far enough away now to be out of danger from that explosion, so we'll slow down, circle around, and find out whoever it was that touched it off."

He slowed the mad pace of the cruiser until the firmament behind them once more became visible, to see that the system of the Fenachrone was now illuminated by a splendid double sun. Send-

ing out a full series of ultra-powered detector screens, DuQuesne scanned the instruments narrowly. Every meter remained dead, its needle upon zero; not a sign of radiation could be detected upon any of the known communicator or power bands; the ether was empty for millions upon untold millions of miles. He then put on power and cruised at higher and higher velocities, describing a series of enormous looping circles throughout the space surrounding that entire solar system.

Around and around the flaming double sun, rapidly becoming first a double star and then merely a faint point of light, DuQuesne urged the Fenachrone battleship, but his screens remained cold and unresponsive. No ship of the void was operating in all that vast volume of ether; no sign of man or of any of his works was to be found throughout it.

DuQuesne then extended his detectors to the terrific maximum of their unthinkable range, increased his already frightful acceleration to its absolute limit, and cruised madly onward in already vast and ever-widening spirals until a grim conclusion forced itself upon his consciousness. Unwilling though he was to believe it, he was forced finally to recognize an appalling fact. The enemy, whoever he might have been, must have been operating from a distance immeasurably greater than any that even DuQuesne's newfound knowledge could believe possible; abounding though it was in astounding data concerning superscientific weapons of destruction.

He again cut their acceleration down to a touring rate, adjusted his automatic alarms and signals, and turned to Loring, his face grim and hard.

"They must have been farther away than even any of the Fenachrone physicists would have believed possible," he stated flatly. "It looks more and more like Seaton—he probably found some more high-class help somewhere. Temporarily, at least, I am stumped—but I do not stay stumped long. I shall find him if I have to comb the Galaxy, star by star!"

Thus DuQuesne, not even dreaming what an incredibly inconceivable distance from this Galaxy Seaton was to attain; nor what depths of extradimensional space Seaton was to traverse before they were again to stand face to face—cold black eyes staring straight into hard and level eyes of gray.

TO BE CONTINUED.

Dr. Conklin—Pacifist

The story of a scientist's dream of peace—and the chaos that followed

by Calvin Peregoy

DR. CARL CONKLIN strode irritably about the solarium tower of Short-Wave Castle. He had spring fever. Also, in spite of authoring a monumental thesis on diet, he had a touch of dyspepsia.

His usual tranquillity was as deeply disturbed as his stomach. Two colossal experiments had fizzled. He had created a race of supermen with a planned life and economy. They had promptly found themselves so glutted with necessities, luxuries and efficiency that they determined upon the extinction of their "ancestors"—still living—as a race too savage to live in an advanced world.

Then the ensuing experiment, when he created an advanced race of "perfect normal people," had ended in a war between the sexes. A sexless civilization, and finally realization among the test-tube folk that being produced merely to die was hardly worth the boodle, resulted.

He had been laughed at, by the few who knew, for those experiments. Yet his perfection of an ever-fresh taffy candy was hailed as a gargantuan scientific accomplishment!

Doubtless the world was all wrong. But Dr. Conklin was a humanitarian. If the world was wrong, some cancer must be the poison center. And as he had nothing else at the moment to occupy his mind, excepting to rationalize his dyspepsia, he decided to cure the world's evils.

He glanced again at the teletyped reports of the day's headlines. War, riots, police troubles, underworld killings, political spoil, murders for jealousy, money, greed. Renewed warfare in the Orient—another Yellow Peril. Strikes, riots, slum fires—everywhere man's hand turned against man for personal gain or triumph.

The doctor's face grew dark with rage. In his mild nature there were but two points of bitter hatred. The first, man's baser self. The second, the arch fiend (his rival), Dr. Stanton Wales. And the news of the day spread evidence of both.

Wales, "agent of the devil," as Conklin remarked, was setting off to a secret laboratory in Alaska. He promised that within one year he would perfect a death ray making his country—or himself—ruler of the world.

"War, death, predatory slave drivers, human hyenas, leeches of civilization, Wales!" muttered the doctor heatedly, thinking of a great many things at once. But particularly of the headlines Stanton Wales was reaping with his evil plans.

And he had other worries.

Shortly, his daughter Megs (named for the megalomania of his long-departed and unlamented wife, the doctor privately thought), would appear for tea with her conceited, red-shocked giant of a young man.

The doctor had the vague notion that Pat Chelsea would ask for the hand of Megs Conklin that day. He grimaced. Conceited whippersnapper!

Her father, somewhat the worse for wear, but living, was draped over a beam. "Remarkable!" he said feebly. *Illustrated by Elliot Dold*

Megs was growing hard to handle. Why couldn't she pick somebody like Dr. Ebenezer Whittleboose? A bit elderly and bony in spots, perhaps. But the coming great scientist. A man who thought (and starved) in terms of living for humanity, instead of living on it.

MEGS ARRIVED with her red-headed giant, a handsome animal with destructive shoulders, carnivorous jaws, and a predatory gleam in his eye. He picked an early opportunity to get off on the wrong foot. With great enthusiasm he mentioned the stupendous dream of Stanton Wales.

Dr. Conklin was too enraged to do more than gurgle. Megs kicked Pat sharply under the table. Pat swallowed hard. Something queer happened as a

result. His stomach constricted and he gave a small burp.

"You should watch your diet, young man! Entire human system depends on proper eating. No reason for an upset stomach." The doctor's tone was brittle. He gave a prodigious rumbling belch by way of punctuation.

"Nothing to do with diet," he hastened to explain. "Some new exercises I'm taking." He glared at Pat malevolently as the corners of that young man's mouth twisted upward.

At last Megs left the two alone. There was the age-old awkward request, the timeless question: "Do you think you can support my daughter?"

"Support her!" Pat Chelsea's face broke into a broad smile. He was in his best braggart element. "Say, by the time I'm thirty I'll be at the top! Yes, sir, if I have to strangle every big-shot financier in my path!"

He sounded as if he meant it. And looked it.

Dr. Conklin grew red, gray, white, green, finally black with wrath. That determined it. Another hyena—and in his own family. It was high time something be done about man's grosser instincts.

Megs wisely sent Pat away. But loyally, she refused to leave with him.

"I'm all dad has. There's just me and his bugs in the laboratory. But I'll come next week, Pat. Give me that time to tell him," she explained.

She told her father the next day. He looked at her savagely, stalked out of the room without a word. Two hours later there was a deafening explosion from the atomic laboratory.

Megs ran. She sobbed as she threw open the door, saw the débris and drifting smoke and fumes. There was no sign of her father. Conscience smote her. The blow had been too much for her father to bear.

A strange gurgle came from directly over her head. Her father, somewhat the worse for wear but living, was draped over a beam. An hour later he had recovered.

"Remarkable! Ten years I've searched. Then it came in a flash!"

"I heard the flash. But what?" asked Megs.

"My dream for humanity! Peace on earth! Megs, I've isolated all the emotions of unrest! I will be the savior of civilization from itself."

"Maybe civilization doesn't want to be saved," Megs remarked with feminine lack of logic. But her father, in the bigness of the moment, forgave her.

"For centuries the world has yearned for peace. Hate, lust, greed, ambition, rivalry, possession, inferiority have been the gain of civilization. Each has its separate brain cell. And now I've found a way to paralyze those cells! And those alone. I will take my ray around the world, end bloodshed and the desire for conquest!" her father continued, absorbed by a vision of brotherly love and out-headlining Stanton Wales.

"Phooey!" Megs said.

She retired to dream of husky young arms. The face was always a bit vague when Pat wasn't around. Probably his features would become indelible with time, though.

TWO MONTHS later, a light in his eyes and clippings in his bags, Dr. Conklin arrived in Tokio. He was in excellent humor. His daughter had promised to await his return before marrying.

He had perfected his ray-broadcast equipment so that it could be relied upon to operate for three months without attention. Two months would definitely paralyze certain evil desires and emotions in mankind. The apparatus radiated five hundred miles.

The theory was simple. He had isolated twelve cells of man's brain. Each cell was responsible for one of man's

evil motivations. Each cell was susceptible to certain ray vibrations.

His idea originated when he found directly applied infra-red rays would drive a person temporarily into a state of coma or delirium. The solution of the problem had been merely adding the technique of regular short-wave radio broadcasting and atomic decomposition.

There had been one embarrassing moment before he left. Megs had incontinently inquired if he had used the rays upon himself. Where she got such suspicions of his ethics he couldn't imagine.

But in the interests of science, naturally it was well that the operator of the rays should remain as formerly. Just until he had been able to study changes in the world from the old reaction standpoint, of course. Dr. Conklin had protected his own mind against the rays.

Working feverishly, he had managed to spot North America thoroughly with ray stations. Not one inhabitant would suffer longer with any of the twelve most evil desires of human nature. He chuckled as he imagined Wales' evil, commercial ambitions and work put to naught.

Within six months he would cover the globe with stations. Then peace and brotherly love would be so predominant he could release his secret to the world.

He, Carl Conklin, would be the greatest living benefactor of the human race! And he would be putting a finish to the brutal work of Stanton Wales.

Within the week, he had broadcasts of rays covering all Japan. It would take time for the rays to bear full effect. But on the day of taking plane for China he saw evidence that good will had come to his vast project.

Four strangers stepped off a sidewalk to help a donkey pull its load up a hill. Contrary to centuries of tradition, the driver failed to beat the donkey. And contrary to ages of custom, the donkey failed to attempt pushing the cart downhill instead of up.

At the airport a luggage rack tore loose from a plane, injuring a porter slightly. There was gravest concern. The entire staff and loungers rushed to be of assistance.

In the press of crowd the injuired man was trampled upon, had four ribs and a leg broken. The grief of the people was remarkable. Dr. Conklin considered the broken bones in the interests of science. He had seen unusual and very real mass sorrow for an unimportant being.

ALTHOUGH Dr. Conklin was a most brilliant mathematician, he experienced great difficulty in finding the shortest distance between two points when traveling.

Thus his destination was Peking. But for unaccountable reasons never quite clear he arrived way up at Harbin in the midst of a scattered warfare between innumerable armies. He was struck by horror. But he could learn little about just which way the battle was going due to the fact that of the fifteen or twenty armies apparently interested in annihilating one another only the Japs stuck together long enough to be identified.

The others, with what seemed no discretion, shifted sides whenever a banner was waved. Such banners announced some other general would pay soldiers one yen more per day if they would swear by the Pink Toenail to get killed immediately and gloriously.

They seldom got killed, never gloriously at least. They never got paid their extra yen. Yet the scene gave the doctor's imagination something to chew upon.

There was nothing he could do. His equipment and supplies were in Peking. So by miracle and train, with interspersed airplanes, he arrived in the Imperial City entirely via Chinese trans-

portation. Since the days of Marco Polo that stands as an unequalled achievement.

En route he met a comrade. The unshaven gentleman spoke with a Third Avenue dialect of war, blood and revolution. He was, it seemed, spreading enlightenment, in the interest of a northern power. But learning Dr. Conklin's views on war and hatred, and incidentally that the venerable doctor had ample ready cash, he realized that for years he had been a disciple of the doctor's.

Forthwith, he became chief of staff. And ate his first hearty meal in many a lean week. Unaccountably, he could operate an airplane. But he was not lacking in other sciences. Once he had been a full-fledged electrician's apprentice and understood the rudiments of electronics to the extent of actually knowing what a relay and coil consisted of.

Dr. Conklin was impressed with his new helper. Particularly after that gentleman listened to him talk all the way into Peking. The journey had been unpleasant and rather speculative at times. But his new helper had shown the height of intelligence. His remarks ("Yes," "You're absolutely correct," and "Why does only *one man in the world* see those things?"), branded him as a being of deep insight.

There were troublesome details about such matters as passports and visas. But his chief of staff had an uncanny ability to get such matters straightened in no time with the aid of a little money. And his pen. And sufficient sealing wax, seals and stamps to obliterate completely whatever was printed on paper.

There were rumors of pirate and brigand raids in the south. But they could be nothing like the ruthless battle zone the doctor had just passed through. A large plane was purchased. Properly armed with the necessities for setting up broadcast stations, the two saviors of the world flew northward.

It was at this point that the doctor showed latent signs of native intelligence. He allowed his assistant to fall under the ray broadcast in a natural manner. Inasmuch as he could not avoid it, the assistant, whatever he might once have been, was soon a first-degree pacifist.

During the journey north, they made two landings. The doctor would have liked to have set up broadcast stations at those points. But it seemed unnecessary. The mere rumor that Japs were within eleven hundred miles had thrown the Chinese into a frenzy of pacifism and speed toward southern quarters. Obviously, it was the hardy northern brutes who needed the seed of brotherly love.

THE CONQUEST of China by compassion and good will might have been an easy task had it not been suddenly discovered, to the doctor's complete amazement, that the boundaries of the country extended over a considerable number of five-hundred-mile radii. And there seemed to be innumerable generals and warlike factions swarming in all quarters.

However, he subdued the three Japanese and hundred or so odd Chinese armies north and west of Harbin. One morning, they were all fighting. The next, thinking of exchanging gifts.

Unfortunately, just at this time, news came of hot warfare on the Siberian steppes. There was equipment for three broadcast stations left. The doctor dauntlessly set forth to confront the entire U. S. S. R.

Alas, part of his work was wasted. One whole radius brought brotherly love to nothing other than a tribe of peaceful herders, a flock of sheep, a small village and one lingering Cossack. Had she known it, the Cossack's "captive lady" would hardly have thanked the doctor for the sudden loss of her conqueror's brutality and lust. Rather

oddly for that part of the world, there had been no sense in her getting captured.

However, the doctor suddenly realized he had miscalculated his ability at traveling and the load capacity of planes. He now, rather haphazardly, organized an army of peace. But much to his amazement, the only members of his army who understood electronics sufficiently to follow blueprints were ten Japanese army officers. And the doctor, not yet himself under the spell of complete brotherly love, recalled lurid accounts of the Yellow Peril. Yet he had to use them.

By various means, all started toward Peking. Only two were fated to arrive. The quiet and peaceful coolies last seen fleeing panic-stricken southward realized that the northern guns had ceased. Curiosity once satisfied that the wiry northerners had somehow gone insane and would not fight gave them an idea. It was easy to annihilate many thousand men who merely sat and smiled while their heads were removed.

With Peking under the spell of a hastily erected ray broadcast, the doctor was heralded as a new messiah. Here he found friends, pacifists, technicians, electronists, aviators, help. One of his chief adherents, General Fung Wu, would hardly remove his heavy carcass from the doctor's presence long enough for momentary privacies.

And there was small wonder. General Fung Wu was attempting to solve a grave question. How came it that he, who had some three hundred thousand heads to his credit, so thoroughly agreed with Conklin's views on peace and the annihilation of evil passions?

Dr. Conklin expressed his views quite publicly. But his means of accomplishment he kept a secret unto only the most impassioned adherents taken into his confidence and training. Yet over Asia, down into India, up and across Russia, swiftly spread the cosmic-ray conquest of man's more bestial tendencies.

So it was that on one fine morning, militant officials in Leningrad looked stupefied at a telegram from one of their most reliable generals. According to orders, he had captured eight thousand insurrectionists. He was to put most of them to the sword—after, of course, proper one-minute court martials.

But, the telegram told distinctly that he had given them a banquet, commandeered a train and was sending them to Leningrad for a royal—"royal" of all words!—reception! There must be some joke.

But there was no joke. The eight thousand arrived in due course. And the bloodiest official of a few days before was the first to greet them and extend the cordiality of the republic.

THE GERMAN POWER read the dispatch with a sadistic smile. His Russian correspondent was getting a bit out of hand to attempt such a joke. It would take a few days to recall the correspondent for discipline.

But in the meantime, he recalled, there was a South Rheinish community which had extended work to six of the less-than-nothing race. True, the wages of those six were supporting about four hundred souls. But it was still out of proportion. Three might have been condoned.

He clipped forth an order in a stentorian voice which caused a squirrel to pause in wonder and brought five aides before him. The head men of the community and the four hundred less-than-nothing beings would be brought before him. There was a deep salt mine which needed workers if the matter could be handled quietly. As the aides turned smartly to see his orders carried out he noted that the small spurs on one well-polished boot would drive nicely into the flank of certain bearded ex-money lenders.

But five days later when the four

hundred were brought before him he gave them a feast and large gifts to carry home. Two of the young men were rather good fellows. He presented them with silk scarfs and Majorca leather boots. And he accepted a Talmud as a token. His ambition, hate and inferiority complex had disappeared.

Conklin, traveling feverishly to command his work—always twice as far as would have been necessary for just an ordinary mortal—now moved headquarters to Paris. His secret workers had been there three weeks before. Their work had been thorough. But the doctor was rather annoyed with the French, particularly with the academy.

In the past he had managed to find worthy opponents, enjoyed many a fine evening of hot debate over theories and abstract matters with the voluble French. They had been sharp, witty, ready to debate any scientific subject as a matter of pride.

Such verbal fighting he enjoyed. It caused a flow of ideas, gave birth to new thought, enabled a shrewd observer to get an inkling of what other advanced scientists were thinking.

Now the academy was dead. True, he was welcomed with opened arms, heralded as the greatest leader of all time. But nobody was more than passingly interested in the technical means by which he was accomplishing his great dream. He could find no scientific opposition. There was little theoretical discussion.

Even his lifelong theory that a man could be transformed into an apple, a dinosaur, a piece of cheese or anything else and back again without harm, was listened to with nods of ready agreement. Everybody wanted to be friendly. There were no longer rivals or ambitious souls.

In desperation, he turned toward the fish marts. If the scientific world had nothing to offer but praise and agreement, at least he was sure of lively bargaining with a fishmonger. He picked up a beautiful flounder worth, at the least, eight francs. More through habit than anything else, the monger asked eleven francs.

"One franc six centimes!" the doctor snapped. The monger looked somewhat shocked and hurt at the tone. A tear came to his eye. He bowed low, made profuse apologies. If his price seemed high, nothing would do but that the gentleman must take the flounder as a gift.

Dr. Conklin felt frustrated. The French had become too peaceful and dull to be bearable. Beside, he did not want the flounder. But there he was, nearing his hotel, with the flounder flopping under his arm.

A large, red-headed gendarme, terrifically reminiscent of a certain Pat Chelsea, appeared. Dr. Conklin felt a moment of complete madness. He hurled the flounder into the gendarme's face. Then, terrified, he shrank back, awaited arrest.

The gendarme wiped his surprised face. He contemplated the doctor very gravely. Then inquired if he did not feel well. Could he help the gentleman to his residence or a place of rest and refreshment? Dr. Conklin gave a yell of hysteria and raced for the privacy of his rooms.

The doctor's nerves became a matter of national concern. It was suggested that he rest in the country. He had traveled a great deal, worked like a dog for six months. Probably what he needed was rest and relaxation.

THE FARM he visited was an old fortified place, built in a three-wing quadrangle, painted white, dotted with blue shutters and surrounded by a gurgling brook. But inspection showed something amiss. The chickens were mere skin and bones. They laid no eggs. The ducks were all dead. The place was swarming with rats while a

family of half-starved cats contemplated them with interest but without action.

For many weeks, the doctor had lived on special concentrated foods, following out his theory that under high pressure bulk food was bad for the stomach. Now, relaxing, he could afford to eat. And a full-course dinner with a bird and fish and roe would taste first rate.

Cornering the obsequious butler, he spoke of what he would like that night. The butler stared at him in amazement. Quite unaccountably tears welled in his eyes. He rushed from the room. Dr. Conklin did not see him again until dinner time. And dinner, much to his annoyance, consisted of vegetables, milk, cheese, fruits. Not so much as a small trout or snail!

The next day he had time to look over details of what was happening in the world. War had ceased, he noted with satisfaction. Even gang murders in his own highly civilized country had fallen to nothing. But here and there peculiar little notes came to light.

In New York, the exterminators had gone on strike followed by dissolution. The city was suffering from a plague of vermin, bedbugs, roaches, ants, lice, other creatures. In a public statement the union declared its members to be unanimously against the extermination of live creatures with feelings, brains and souls of their own.

A small child in a tenement had died of infections originating in multitudinous lice bites. The entire city turned out for the funeral. But apparently nobody thought to kill the lice. In fact, they were forbidden to by law.

A new cult was gaining adherents. It was called the cult of the Holy Chigger. Its object was to aid the small insect in its fight for existence. A zealot had given a five-million endowment. The government was creating a subsidy to aid its work.

Eggs throughout the world had reached tremendous prices. Hens were not laying. They had ceased to find bugs and worms delectable. A movement was afoot, growing from Turkey, to prevent by law the eating of eggs as being inimical to possible potential life.

In Geneva, the secretary and field workers of the Society for the Advancement of World Peace had become hopeless pathological cases. The president of the society was a raving maniac. There was no longer cause for their life work. The Fascist party in Italy had disintegrated with the dissolution of the army and police.

In England the budget was completely out of balance due to failure to collect taxes. Judges and tax collectors could not find the heart to prosecute or sentence delinquents and evaders. America had started the ball rolling by canceling the war debts.

In Africa and South America the jungles stank with the rotting bodies of carnivorous animals. They had died of starvation after paralyzation of their killing instincts. The case of a leopard suckling on a herd of cows was reported. In India whole territories were being laid desolate by armies of ants which the natives refused to fight or kill.

Dr. Conklin very suddenly took the first boat for New York. There he was given a tremendous ovation, being proclaimed the savior of mankind. Except to intimates, the means he had used to bring about the state of peace and friendship was unknown. But his views were thought to have led the world from the evils of dark ages.

AMONG THE first to greet him were his daughter and Pat Chelsea. Chelsea was a changed man. He thought he might have a chance with Conklin on the strength of his recent accomplishments. He had discovered a means of luring rats out of the city by means of peculiar lights, and was the hero of the hour.

But his engagement with Megs

seemed lacking in fire. Like millions of others, they had turned docile. There was no jealousy, no sense of possession, in either one. Decidedly it was not the same Megs the doctor had known and loved for twenty years. The sudden sugar sweetness of her nature, her constant desire to help and please him made him sick. Gone was the pertness, the little streak of hard-boiled selfishness.

His home country stirred him deeply. Industry was chaotic. With no avarice, greed, ambition, rivalry, people were content to get along without much work. Cowboys, butchers, poultry farmers had quit work altogether, refusing to hurt living creatures. A few racketeers were making millions in the new surreptitious delousing racket.

Spreading eastward from the prairie states was a jack-rabbit scourge. By law, it was a major offense to kill one since the establishment of peace on earth, good will toward all living things.

Communities were being stripped bare of food as a result of unprotected crops. Scrubs, earthworms, pillagers of truck gardens ate unmolested. The boll weevil gained without hindrance, destroying the cotton crop. There was practically no fruit in the entire country. Populations used to meat and now living on worm-eaten vegetables developed unknown diseases, died off like leaves.

Every criminal in the country had compassionately been turned loose. There were still courts, but few if any sentences. It was no longer necessary to steal. Brotherly love was so intrenched it was impossible for most people to refuse giving what another desired. Yet stealing went on unhindered, often within sight of those being robbed.

A large western railroad was blocked for four days by a herd of cows unfrightened by the toot of the whistles or shouts. No worker aboard the train would lift stone or stick to hit them. One cow lay in the shade of the engine immediately beside the wheels and lowed gently at passing men.

An entire area in the west was devastated by locusts. No birds would touch them. Except for birds living on plant life, most birds were dead anyway.

And now terrible rumors came from abroad. A fierce person stalked the lands, taking governments, killing, beating, forcing people to work and produce, eating meat, protecting late crops with sprays which killed countless insects and parasites. And with him were ten men. His name was *Stanton Wales!*

So Wales had retained his former mental make-up? Then he had not been in Alaska. Only two sections of the world remained uncovered by Conklin's rays. The two poles. They had not seemed important. But they had been important. Wales must have been in Northern Greenland! And no apparatus which would place him under the ray paralysis was now operating.

STANTON WALES, with his ten assistant engineers, had arrived in Europe mystified. It had taken the scientist a matter of days to realize that something colossal had happened. The semiperfection of his ray had caused horror and alarm, not applause.

In high dudgeon over his cold reception by the Italian primate, nettled at the complete destruction of all war apparatus, he had furiously shouted that for a plugged lire he'd take the government over himself.

It had been an empty threat, given in heat. But somebody anxious to please had promptly given him a plugged lire. And, unaccountably to him, the entire government had waited to learn his wishes!

If he thought himself crazy, he accepted the fact calmly. He saw the opportunity, unexplainable as it was, of controlling this world of subservient be-

ings who had lost their independence and sense of freedom.

He promptly began reorganization of countries as he deemed fit. He was, he knew, cordially disliked, his army of ten feared. But nobody was of a mind to offer them physical harm, whereas, when necessary, he killed forthright. Within weeks, he had conquered all western Europe.

"Wales the Bloody," he was called. He had killed perhaps fifteen people. But an equal sin in the eyes of his slaves was his fiendish destruction of bugs damaging crops.

One man, with a little help, could conquer the world!

Yet Conklin was powerless to stop him. The only hope for world existence, by the looks of things, lay in the *conqueror.* The rays to cause world peace were causing world destruction. While rays of destruction were at least sustaining life.

Conklin's wrath rose in him. This conqueror, of all men on earth, had to be his hated rival, the man he had thought most of hurting when he began his own vast work!

In rage, he determined to prevent Wales from becoming ruler of the world. But first he called a conference of men from varied walks of life. He asked distinctive men to name the one emotion which had carried them toward success in the dark days of hate, ambition, blood lust.

An industrial baron said ambition, a wheat and cattle king, the right of possession. A brilliant scientist said rivalry. A shrewd, and in his way good, politician named greed. A famous self-made banker said an inferiority complex had driven him to control of millions. A union leader said desire for power. An economist named laziness. A great naturalist said hate for mankind.

"And you," Conklin asked a husky father of sixteen children, "you must have loved your wife deeply?"

The man looked at him in consternation.

Conklin looked at his own daughter. A smile touched her lips, a sharp gleam flickered through her eyes. Then her face fell back into inanimate insipid sweetness.

Conklin shook his hand at the roof.

"Gentlemen, we have ended the most evil desires and emotions of man. But there is a dangerous being in the world today. Wales! You have heard of his conquests and brutality. It must stop. *It will stop!* Yes, if I have to search him out and kill him myself!"

There was a horrified silence. For a long moment the assembled men looked at Conklin with dread. Then, in a silent body, they arose and left.

LATER that day Conklin looked over the headlines on the papers.

"Conklin the Tyrant," the headlines screamed.

Even for such an extreme case of retrogressive opinion, the editorials pointed out, the world would not go back to the dark day of savage thought left behind.

Undoubtedly, Wales was the most evil man in the world. Yet he could not be stopped without bloodshed. And bloodshed would be equally evil. Truly, Conklin, by his very desire to kill another man, was as evil as the man he wished to kill.

The extreme punishment acceptable to modern thought must perforce be meted out. *Conklin's company must be shunned!*

The doctor's lips twitched. A few short months before he had thought to save civilization from itself. His dream had failed. He could right that. But he was outcast not because the dream had failed. But because he wanted to protect the world from dominance by Wales!

Wales had given him this final blow!

And with that in mind, Conklin set to work. He worked feverishly to discover a ray which would restimulate paralyzed brain cells. He worked for days on end, dropped of exhaustion.

Then radio reports of the spreading power of Wales would drive him on. Drive him on with *hate!*

And at last, when the two Americas were the only lands not ruled by Stanton Wales, when he was driving self-made slaves to work, to kill insects, condition warships and make chemicals for his semi-perfected death rays, when the Americas stood in numbed panic of conquest, then Dr. Conklin found his other rays.

And almost overnight two continents sprang back to normal, made ready to meet the invader.

The world was divided. Two-thirds so opposed to death and pain that they would not even fight for liberty. One-third as of old, ready to slaughter.

And again Carl Conklin became the hero of the world. He had saved it from self annihilation, destruction, race suicide, conquest by an egomaniac, or by bugs.

But his cup was bitter. The thing he had tried to accomplish had failed. The thing which had made it possible to defeat Wales was *hate.*

And later, when Megs told him she was shortly marrying the red-headed brute who had something of love, but something predatory, too, in his eyes, then Conklin knew complete defeat.

"Well, I hope you've had enough of saving humanity!" Megs added. "You just can't meddle with human nature forever, you know."

Dr. Conklin's face changed from bitterness to high excitement.

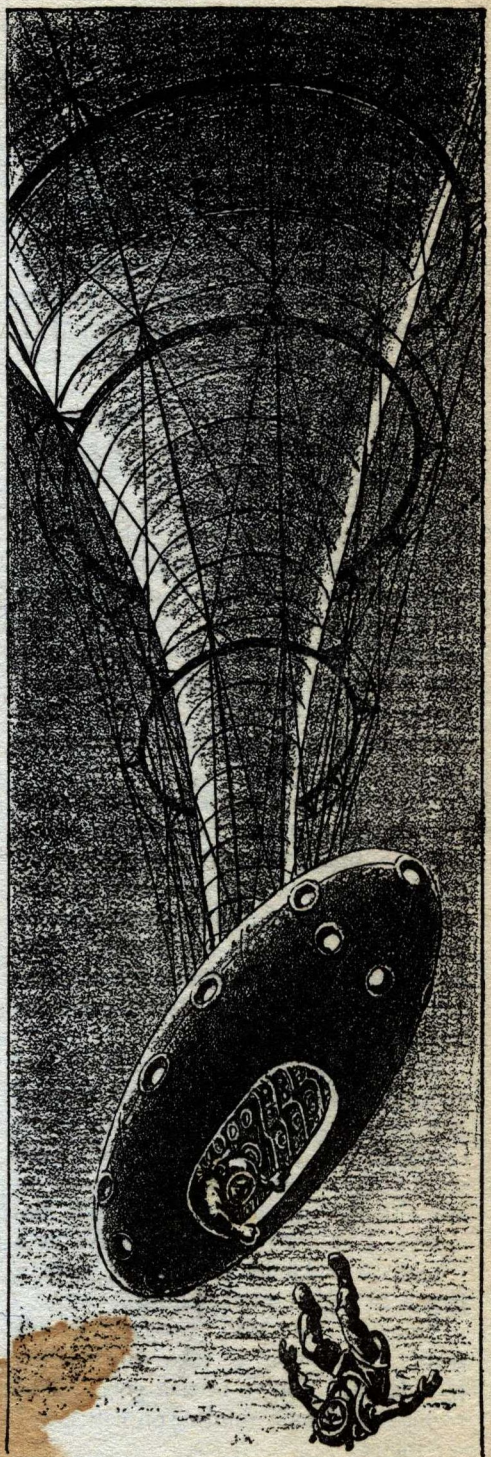
"Humanity! Human nature! Megs, I've got it! I've got it!"

He dashed away toward his atomic laboratories, already lost in new dreams. Megs watched his flying coat-tails with a puckery smile. So he had another idea, did he? It might be better if she and Pat were married immediately. No sense taking chances on what he'd do next!

Aground in Space

In which a scientist miscalculates the ethereal forces

by David O. Woodbury



Illustrated by Elliot Dold

THE FIRST TIME I saw Joe Barnaby was on the operating table in the emergency ward of the M. G. H. He lay sprawled and twisted with both legs broken and a lump on his head the size of a teacup. There was something magnificent about him even then, for he looked up at me with those quizzical gray eyes of his and smiled.

"Guess I need an overhaul, doc," he said, and winced silently as I began to cut the clothes from his mangled limbs.

Then they slipped the ether mask over his face and he relaxed, content to let others take charge of his destiny. From that moment on Joe Barnaby was to me a tragic figure—and the symbol of scientific progress.

He was a student at the Engineering Institute in those days, writing his master's thesis in aviation. He'd been trying out a new parachute of his own invention, and it had tangled him up with a factory chimney and left him in the lurch, so to speak. But I mended him well enough, and

he was soon on his feet as lively as ever.

As for me, I was never the same man again, for I had fallen deeply under his spell. In the midst of my precise and unemotional surgical world, here was an old-line inventor, a typical tall, stoop-shouldered, sandy-haired Yankee with a twinkle in his eye and a sense of humor as keen as a razor and more often in use. To me with my smug routine of twenty-first-century medicine, Joe was a revelation. I could not afford to let him go.

Afterward, he got an instructorship there at the institute and was for some years buried in routine. But when he emerged from it, it was as only Joe Barnaby could have emerged—with a scheme that would revolutionize the world and make of himself either a hero or an irretrievable fool. By that time he and I were tolerably intimate and used to spend an occasional week-end together in a bungalow on the Cape where he was doing some private research of his own.

And it was here that I first saw Paula, his secretary, whom he used to bring with him under the stiff chaperonage of a maiden aunt. Paula was, well, all that two naturally scientific chaps could have desired in a woman—or a wife. She was—but the story is about Joe at present and I shouldn't let myself get sidetracked by Paula, yet.

Being somewhat older than Joe, I had adopted a slightly fatherly air toward him and was perhaps inclined to credit him with less genius than he had. And so one day when he smashed down on me with the full weight of his new discovery, I was about as responsive as a schoolboy suddenly confronted with a lesson in higher mathematics.

"Mark," he said, measuring his words, "I'm going to take you into my confidence. You've been a good friend to me, and Paula thinks you can help."

"Paula?"

"Yes. She likes you. And she thinks I need another man in the venture. You see, this is no ordinary research, my boy, and Professor Berkle, for whom I'm doing it, has insisted on keeping it a closely guarded secret. He's taking his orders from the president."

"What on earth can you be working on that requires such precaution?"

"Ah, that's it," he said significantly. "From Berkle's and the prexy's point of view, it isn't so much its importance as it is its—well, its idiocy, I imagine. They don't want the name of the institute dragged into a hoax."

"My dear fellow, I wish you'd explain. All this mystery isn't scientific, you know."

"I will. But first I want you to promise me your silence and your cooperation."

"Silence, of course," I told him. "But surely you don't expect me to help you actively. After all, I'm a surgeon doing full-time duty at a metropolitan hospital."

"I'm rash enough to imagine that you will give that up," Joe said, with an almost facetious note in his voice. But I knew Joe well enough to be sure that he wasn't joking.

"That crack on the head you got from that brick chimney——" I began.

"Listen!" He turned on me with sudden fire. "We're on the trail of something really big, and I'm offering you a ground-floor seat. Are you going to refuse it?"

"Shoot," I said calmly, "and I'll tell you the answer afterward."

"I'M WORKING on a revolutionary means of transportation," he went on. "A method by which a conveyance may be made to circle the globe in less than twenty-four hours. If I succeed, the world is going to jump ahead a hundred years overnight."

"Let me see that lump on your head," I mocked him, bending over.

"Just keep your shirt on," he ordered,

"and don't try to be funny. You may not believe it, but the thing's practically an assured success already."

"When do we start on the maiden trip?" I gibed, still unable to attain the proper air of seriousness.

"It won't be so long now," Joe told me gravely. "I have been working the final kinks out of the scheme just lately, and I can say definitely that success is in sight."

"Come now," I objected, "you can't expect me to believe the institute has handed you any such research as this."

"No. I handed it to them, and they were afraid to let it go by," he said proudly. "They thought it was insane, but they couldn't figure out why it shouldn't work, and so they've had to let me go ahead."

"And they're playing ghost-backer to your Darius Green, eh?"

"Something like that. Did you ever hear of the Michaelson-Morely experiment on ether drift?"

I qualified moderately on that point.

"Michaelson, when he died, had never proved that the ether existed—never showed that the earth was drifting through it. But I have."

"Do you mean to tell me——"

"I mean to tell you that while Michaelson was on the right track, he did not go quite far enough. All his work was done with light, you remember. He tried to show that the ether would drift with respect to a *light beam*. Well, it won't. Einstein told us why. The speed of light is invariant, regardless of the point of reference.

"But Michaelson never thought of trying to use *matter* as a reference point. That's what I've done. If you fix on a particular atom, or rather, on its electrostatic field, you can readily show that the ether drifts; you can prove that the world is revolving in a fluid bath, just like a ball spinning over and over in water. And the water is standing essentially still. Do you see what that means?"

"No; being nothing but a surgeon, I don't," I replied. "What does it mean?"

"It means this: If you can manage to step off the ball and into the water—with a life preserver on, of course—the ball will turn around without you and you——"

"That seems plain enough," I said, not in the least comprehending what he was driving at.

"And when you get ready, you can step back on again, thus making yourself a present of a good long ride, without having gone anywhere at all."

"And reducing the analogy to practical terms?" I prompted.

"You come to this result: Construct a car, some of whose atoms can be brought under the influence of the ether field; raise it clear of the earth, jump out into the ether, so to speak, and wait while the earth goes around under you at the rate of a thousand miles an hour. Then, when you arrive over your desired destination, pick up the earth's gravitational field again, adjust to the speed of the ground under you, and come down.

"You see? Europe to America in five hours. Around the world in twenty-four or less. At least three times as fast as any rocket car ever invented, and with the expenditure of practically no energy, except for the original lift."

"It ought to be wonderful if it worked," I said.

"It *will* work. It *does* work!" Joe leaned forward with almost fanatic enthusiasm in his eyes. "For two years I've been surmounting the obstacles to its achievement, and I have at last solved every problem. Mark, will you go in with me in this?"

He seized my shoulders and turned upon me the full extraordinary strength of his personality. I felt as if I was being hypnotized.

"What do you want me to do?" I demanded. "I told you already that I

have a full-time professional job. If you expect me to hang around a laboratory——"

"Look here, doc," he said—and now I was sure he was hypnotizing me—"all that is passed. The laboratory work is done. What I want you to do is to go with me on my first trial trip."

I won't attempt to describe my emotions; as I say, he had me under his spell. What would you have done in the circumstances? I put it to you squarely. Would you have backed out? Pleaded a previous engagement? Disclaimed any desire to pioneer in this fast-moving age of scientific achievement? Turned down a chance to set all previous records at naught? I was only human—more so than I am now, I expect.

In fifteen minutes I was sitting in my shirt sleeves, listening spellbound to Joe's description of the machine he had already built, the arrangements he had made, the infinite pains he had taken to test and prove every phase of his theory before attempting the final experiment. To save my life, I could not help believing that it could be done.

THAT NIGHT I resigned my post at the hospital, now thoroughly saturated with the insanity of the ether-drift experiment.

"You needn't worry about finances," Joe told me. "I am allowed a large enough appropriation to pay you a decent salary—more than you were getting as a surgeon."

"It could hardly be less," I informed him wryly.

My first job was to get Joe—and myself—into tiptop physical condition. When you plan to cut loose from the earth and go drifting around in the ether, you had better not be hampered by bodily ailments. It was simple enough. There were no organic defects beyond repair in either of us, and Joe's legs were now quite as good as new.

Within a week we were established in the little bungalow on the Cape, with Paula for secretary and the usual old aunt for chaperon and cook. Our little scientific world was complete. We were ready to begin the intensive final preparations.

The "car" had already been built and equipped. To me it looked very much the same as any ordinary streamline automobile, though somewhat larger, and made of polished magnesium—lighter than paper, stronger than steel. It was attached to a huge balloon of essentially the same design as that originated by Picard, Settle, and others so many years before in the early stratosphere experiments.

There were, however, much more efficient means of controlling the rate of ascent, and in addition the car carried a brand-new type of high-altitude parachute which was to see us safely to earth when we should arrive at the end of our journey.

But within the car all was mysterious. After a few futile attempts to master the intricacies—or, rather, the utter simplicity—of the mechanisms, I wisely gave it up and contented myself with agreeing with everything Joe said and believing implicitly all he told me.

We had as our frequent guest Professor Berkle, who, old and sedate as he appeared outwardly, was really fired with as great enthusiasm as Joe himself. If he had been a younger man it would have been he and not I who ventured into the ether belt with that wild-eyed Yankee, and this history might never have seen the light at all.

But Berkle was there mainly to help Joe check things up, and, consequently, I had a good deal of time to kill toward the last. And therein, perhaps, were planted the seeds of disaster.

While Joe and his colleague were closeted in the laboratory shack, testing their interminable instruments, I necessarily saw much of Paula—dear Paula.

From being a perfectly efficient secretary and scientific machine, she became suddenly very human, very small, very appealing. There were balmy evenings on the beach outside the bungalow, with the water of Nantucket Sound lapping at our feet. There were moonrises—— Oh, well, I was in love.

And one night when we came in, we found Joe and Berkle had finished sooner than we thought. There was a curious expression in Joe's eyes. He watched us come in; moved up an armchair before the fireplace for Paula, and after she sat down he stood for a long time looking at her. When she went to bed at last, his good night to her was hardly audible. I should have known, then, I should have realized—— But, as I say, I was in love.

When we were alone he said: "We shall begin assembling to-morrow, Mark, old man. And I hope in a week we'll be off."

I hadn't realized things were so far along. I found myself suddenly sorry that they were. I had acquired, all at once, an important reason for staying on the good old earth. But there was Joe, standing looking at me out of his quizzical gray eyes. After all, this was Joe's big party, not mine.

"O. K.," I told him. "I'd like to go up to town to arrange for a little life insurance, if you don't mind. You never can tell. Hadn't I better put you down for some, too?"

He looked at me strangely. "No," he said quietly. "I won't need it. Do what you like for yourself."

The next few days were filled with preparations. From morning till late at night we worked, assembling supplies and equipment for the car, overseeing the workmen as they filled the towering gas bag with the subatomic helium which had lately been discovered to have almost the same lift as hydrogen without its extreme inflammability.

For one who knew as little as I did of the underlying theory of all this, I managed to be remarkably useful. A surgeon's training gives him at least an intelligent outlook on scientific matters.

As things steadily neared completion, I began to have a dull feeling in my heart. In a few days now we would be gone. Should I ever see Paula again? Absurd, I thought, to be worrying about a woman when I was so soon to step off the earth and share with Joe the stupendous adventure of the universe. But there it is. Love, which began with the cave man, has never for one instant weakened its hold on us. Nor will it ever do so.

IT WAS the night before the final day. Berkle was there and the president of the institute. A feeling of tension ran through the group; even the sedate professor was nervous and excitable. Only Joe Barnaby remained calm. He laughed and joked and seemed less concerned with the morrow than with the banter of the moment. He was as light-hearted as a passenger leaving for Europe on an ordinary dirigible. He would not be serious.

I followed Paula to the porch and stood with her there, gazing at the huge dark shape of the balloon as it swayed gently in the night breeze. Suddenly she uttered a little choking cry and, turning, buried her head on my shoulder. I had not known, before. It seemed a greater discovery than if we had already landed on the moon or on Mars.

"Mark, Mark, must you go?"

This is not a love story. When we came in Joe glanced up, his cheerful face suddenly sobering. There was that same strange look in his eyes that I had seen on the first night after being with Paula on the beach.

"I'm tired," I said rather lamely. "I'm going to bed."

"All right, old man, I would," Joe

returned gently. "You'll need all your strength to-morrow."

And I left them there together. I was perplexed, harassed—on the threshold of two great adventures which did not mix.

But Fate pushed me on, brooking no interference, giving no smallest inkling of the final outcome.

The yard around the balloon was jammed with reporters; somehow they had got wind of the undertaking. And the highways were black with cars, coming from every direction. Joe stood by the door of the car with the prexy and Berkle. A little way off Paula watched them.

As I came out of the house, I saw her advance and deliberately throw her arms about Joe's neck and kiss him. I could see the look on his face. It was the same as when he had lain on my operating table and said: "I guess I need an overhaul, doc."

I approached them.

Paula turned. "Good-by, Mark," she said. "Cable us from Siberia or wherever you land."

"Come on," Joe said.

Just like that, as if we were stepping aboard a train for Boston after a pleasant week-end. He turned and climbed into the car. I gave one look toward the group on the ground and toward Paula. Her eyes were veiled, and she would not look at me. It would have taken a psychiatrist to unravel that emotional situation.

I stepped in after Joe; the hatch banged shut. The great experiment had begun.

SIGNALING the ground crew through the transparent steel windows, Joe directed the casting off. In a moment there was a slight push upward on our feet. We were a thousand feet in the air. Nothing like that ascent had it ever been my good fortune to witness before. Smoother than the largest transatlantic airship, more swiftly than the best of express planes, we were borne upward.

A momentary swish of rain against the windows and we had passed through the lower cloud lever and were out of sight of the earth. I turned away from my observation window in the bottom of the car and looked at Joe. He was sitting at the controls, idly watching the altimeter spin off the thousands of feet.

He reached over and touched a button; a small circulating fan began to hum somewhere. We were requiring booster pressure already. The faint hiss of oxygen in the deliquefying tanks could be heard, and the air became more pleasant to breathe.

"Suppose you get out your parachute suit," Joe said, then, pointing to a locker on the side of the car. "You'd be safer in it. Picking up the ether drift may require more skill than I anticipate."

I looked at him apprehensively. "How about yours?" I asked.

"Can't afford to be encumbered. Oh, I'll be all right. Go on; do as I say."

I got the thing out—a flexible asbestos casing filled with magnesia to withstand the intense cold of the atmosphere. And on its back a little parachute pack no bigger than a brief case. Joe had certainly worked things out to perfection. I climbed gingerly into the contraption.

"And now what do we do?" I asked him, feeling all arms and legs in this beautifully arranged flying laboratory.

"Sit tight for about ten minutes," he replied. "We must rise to at least seventy thousand feet before we begin."

"Why such extreme altitude? Isn't the ether lower down all right?"

"The ether is, but the atmosphere's too thick. Traveling through heavy air at a thousand miles an hour would crush us flatter than a pancake."

"Traveling *through* it?" I said, bewildered.

"That's what it amounts to. We shall

cast anchor in the ether, so to speak, and let the world and its atmosphere spin around without us."

"It ought to be interesting," I said lamely.

I had no intelligent understanding of it even now. And so for fifteen minutes more we waited, while the clouds below us drifted apart and gave us such a glimpse of the earth as no man had ever seen before.

The whole of New England lay revealed, stretching off into the blue haze at the horizon, the ocean lying like a vast silver sheet on one side, the land a mottled green-and-brown map on the other. Our altimeter read fifty thousand and was creeping steadily up; slower now, because the lift of our balloon lessened as the air's density dropped off. Fifty-five, then sixty thousand.

Joe was at one end of the car, going over the apparatus, which seemed to consist mainly of a bank of vacuum tubes and a tangle of coils arranged around what I took to be a cathode-ray generator of huge size. The mystery lay in the source of power. A half dozen subatomic lead storage batteries were all that was visible, I asked him about it.

"You're right," Joe said. "All the energy we need will come from those batteries. It isn't a power job; that's the point, my dear fellow. We are merely going to step off of something that is moving onto something that isn't."

I smiled, trying to master this complicated problem in relativity. I couldn't get it out of my head that we were presently going to *begin* to move, not to stop moving.

"Well," cried Joe, then, "I guess we'll call this high enough."

He reached over his control board and valved down the balloon till it just balanced the lift of the thin air. The car hung at seventy-two thousand feet.

"Now," Joe directed, "we'll make everything shipshape and start." Rapidly he got out his own parachute suit and put it on.

There was something ominous about standing there in those diving suits at that moment. Everything was so still, so peaceful. The regenerative heating unit in the car kept us at seventy degrees and eminently comfortable, though outside we could see the thermometer was reading ninety below. We swayed gently as the stratospheric wind bore us along evenly, out over the ocean. We were committed to it at last. There was no turning back now.

Like two divers on the deck of the salvaging ship we stood, helping each other to adjust the snugly fitting suits, making sure that nothing was omitted. In case anything went wrong we had only to open the bottom hatch and step free. I cast my eye down through the lower window and shuddered. I hoped fervently that nothing would go wrong.

"There!" said Joe at last. "I'm ready. Are you?"

"As ready as I'll ever be," I managed to reply.

He bent over the control board and motioned me to a position just behind him.

"I want you to watch these indicators here," he directed me. "They show drift with respect to the earth. I'm going to ease us into the ether stream now as gradually as I can."

I nodded. But I couldn't help holding my breath. I was suddenly aware that this ether of his was not by any means the intangible, inactive thing I had always supposed it to be. If it could yank us——

SOMETHING crashed at me from nowhere, doubling me across it. A roaring pain shot through my head and chest, and I felt a sudden overpower-

ing nausea. I must have been unconscious for a time, for when I opened my eyes I was lying huddled in a corner of the car, which was careening and plunging wildly.

I could see dimly that we had hit something, for the interior of our neat abode was a tangle of apparatus and wires. In the midst of it lay Joe, his whole six feet five sprawled like a fallen bridge. I pulled myself toward him, remembering all at once that I was a surgeon.

But it was not necessary. Joe lay there, quaking—with laughter!

"Boy!" he ejaculated. "Does it work? I'll say it works! I didn't realize that things were going to take hold so hard. What hit you?"

I dragged myself to my feet, much less damaged than I had anticipated. My injuries were no more than superficial. I had simply been thrown across one of the structural beams of the car like a sack of potatoes.

"Can't we—take it a bit slower, Joe?" I pleaded. "There really isn't any hurry, you know."

He laughed again and got up. We set about straightening up the mess and found that nothing had been smashed except one temperature recorder.

Joe went back to the control board. "This time we'll hold on," he said.

I decided to lie flat on the floor and proceeded to do so without further delay. He closed a switch. Again there was that awful roar. The car seemed to collapse into nothing. The whole universe tumbled about us. But this time Joe's hand remained steady on the controls, and we came out of it directly.

"I wonder what's wrong," he mused. "It shouldn't grab like that."

I had been glancing apprehensively at the altimeter. "You said we had to go up to seventy thousand feet," I ventured. "That meter says ninety-five."

"What!" He leaped to it and scowled deeply as he read it.

"Ninety-five thousand! We've gained altitude!"

"We must be rising," I suggested sagely. "The balloon——"

"The balloon was cut adrift long ago," he broke in quickly. "No, no; we can't be rising. Look, the gravity neutralizers work perfectly."

He indicated another dial on which the needle stood at the zero mark. The altimeter had also come to rest now, just under a hundred thousand.

Then I had a brilliant idea—one of those that parallel the wisdom in the mouths of babes. "Where is this ether of yours going, anyway?" I asked him.

"I told you it was standing still," he said, a shade testily.

"I know; but the earth isn't."

"No. It's turning around, of course. Something over a thousand miles an hour, in a direction tangent to our line of ascent."

"What about the—the—what is it? The ecliptic? Isn't the earth moving around the sun, too?"

"What do you mean? Of course it is."

"Well," I said impressively, beginning to enjoy my sudden position of knowledge. "I've always understood that, besides turning around, the earth goes around the sun—around a circle with something like a hundred million miles radius——"

"By Jove!" Joe cried and sat down heavily. "The ecliptic speed! I never thought of it!"

"You mean——"

"Don't bother me!" he growled, reaching for a slide rule on the control board.

For the next minute or two he grunted and scowled, immersed in his calculations. Then he did a characteristic thing. He stood up, stretched his arms wide above his head, and burst out into peal after peal of wild laughter.

"What the devil's the matter with

you?" I demanded, beginning to feel alarmed. Was he going mad?

"Ha-ha-ha!" he roared. "Your friend Joe Barnaby has fooled 'em all! Including himself."

"Well?"

"Mark," he said, looking me straight in the eye. "This thing's a failure. It won't work. It can't. I forgot one thing in my calculations."

"You——"

"What you discovered yourself—you, an ignorant layman. We're dealing not with earth speed, nor with ecliptic speed, but with *cosmic* speed. I'm trying to anchor this craft to a spot in space that is moving by here——"

"At ten thousand miles an hour," I put in helpfully.

"No; at several hundred thousand miles a second! The whole solar system is on its way, and we're trying to drop off it while it's in motion. What do you think of that!"

"Good Heaven!" I ejaculated. "Wh-what are you going to do about it?"

"Do? What is there to do? What would any scientist do? Why, admit I'm licked and come down, of course. The whole thing's off."

"But all these preparations—this expense? What will Berkle say? What about the institute?"

Again he burst into that wild laugh. "The joke's on them as much as it is on me," he chortled. "We're *all* wrong. Golly, if the papers ever got hold of this story!"

IT WAS for me a most uncomfortable moment. After all this banging about, all this suspense, I suddenly began to feel let down. It was a sickening anticlimax. I found myself almost wanting to argue him out of it.

"Couldn't we try just once more?" I asked tentatively. "Perhaps some of the ether might not be going quite so fast."

"By Jove! We will do that!" he cried suddenly.

I was taken aback. I hadn't intended anything so definite.

"Mark," Joe said, a new fire lighting in his eyes; "we'll go for a little ride—a tiny little ride. Just for a single second we'll become a fixture in space and see how it feels."

Now I was thoroughly alarmed. "But supposing you couldn't let go," I objected.

"Nonsense. I've proved that I can handle the thing perfectly. Connecting and disconnecting is simple enough. And maybe we'll have something to tell 'em after all."

"Still——"

He turned to me, his face transfused with a mad determination. "Mark, are you game? Are you game to cut loose and go with me?"

"Go with you? Where?"

He pushed his slip stick again for a moment before he answered: "Out into the Milky Way. We can get there in a couple of days."

"The Milky Way! What would we do when we got there?" I demanded foolishly.

"My dear fellow, don't you understand? We'd see what no man ever saw before—the whole solar system, the constellations laid out before us! We could thumb our noses at the world and then turn our backs on it and go on! We could visit half the universe!"

"But—but what *then?*"

He shrugged and threw out his hands in a gesture of resignation. "Oh, wait for the rest of the human race to catch up with us. It would be a glorious way to end, don't you think What's the use of going back home and being the laughingstock of the whole earth?"

I returned suddenly to my senses. This madman, proposing that we voluntarily go aground in space and watch the whole universe parade by! This

madman, who wanted to thumb his nose at all creation! And I, a sane human being, locked up with him, helpless before his insane whim!

"No, no!" I said, leaping up. "No, Joe. For Heaven's sake, no!"

"You're not getting frightened, are you?" he derided me. "See, here we are, comfortable, warm, snug. We've got food enough for a month, and oxygen for nearly six. We could cut down our rations, anyway. Good heavens, man, don't you see what we can do? Pioneer the whole of space! Isn't there a spark of the discoverer in you anywhere?"

"Joe! Joe!" I cried. "Give it up. Do! You're far too valuable a man to end this way, prematurely. Your work on earth isn't nearly finished. Why, this is just the beginning. This particular thing doesn't work, but you've discovered a new principle all the same. It may mean countless riches for mankind—perhaps actually interplanetary travel. Surely you wouldn't throw yourself away just for a—a single joy ride."

"My work is finished," he said slowly. "To me, discovery is an end in itself. I'm not so keen on slaving a lifetime away just for a miserly salary—just to add some hypothetical advantage to the so-called human race."

"Well, then, think of me. Think of my work—my ambitions. And—and Joe, think of Paula!"

He stopped in his tracks. "Paula," he breathed.

I pursued my advantage. "She kissed you as you left. She loves you, Joe." I was desperate.

He looked at me, a long, level look, and his face softened. "She kissed me when I left," he murmured.

We were over some continent now; that we could see through the bottom window. Joe was buttoning up my parachute suit and checking it over. He fitted my oxygen mask over my head and adjusted it. I could hear his muffled voice through the thin steel helmet.

"You go first," he said as he opened the bottom hatch.

I had won, then. I hated to go, but I hated more to stay. I dangled my legs through the opening.

"Here," I said. "How about you? Can't we go together?"

"No; you first. You're the passenger."

But still I hesitated. Was I just plain afraid? Or did I have some inkling of Joe's intention?

"Joe!" I shouted, as well as I could through the mask. "Joe! Are you coming?"

His hand was on my shoulder. "Paula kissed me, but she loves you," I heard him say. And with that he gave me a mighty shove.

I grasped at the hatch opening and held on for a moment. He tore at my fingers.

"Joe!" I yelled. "I won't go without you. I won't——"

"Shut up and get back to her!" he shrieked above me, and with that he broke my hold on the car and sent me spinning downward through the thin atmosphere.

For a moment I hung there, helpless. I was still partly under the influence of the car. Like a man under water, I seemed suspended. The car rode above me, rocking gently. I looked up.

"Joe——"

And as I looked there came a swish of air. Did I catch a glimpse, through the bottom window, of Joe standing there, his mouth stretched wide in a diabolical laugh? I don't know. The next instant there was a streak of light, and the car shot upward and out of sight.

And so, deprived of support, I dropped like a plummet of lead, till with a savage jerk, the parachute on my shoulders broke loose and lowered me gently to earth—and Paula.

It spread its gigantic lacy wings and soared swiftly into the sky. The swiftness of its flight choked Maljoc, and his eyes were blinded by motes of dust.

The Last Men

by Frank Belknap Long, Jr.

A scientific conception of the far future IF——

Illustrated by Howard V. Brown

MALJOC had come of age. On a bright, cold evening in the fall of the year, fifty million years after the last perishing remnant of his race had surrendered its sovereignty to the swarming masters, he awoke proud and happy and not ashamed of his heritage. He knew, and the masters knew, that his kind had once held undisputed sway over the planet. Down through dim æons the tradition—it was more than a legend—had persisted, and not all the humiliations of the intervening millenniums could erase its splendor.

Maljoc awoke and gazed up at the great moon. It shone down resplendently through the health-prism at the summit of the homorium. Its rays, passing through the prism, strengthened his muscles, his internal organs, and the soft parts of his body.

Arising from his bed, he stood proudly erect in the silver light and beat a rhythmic tattoo with his fists on his naked chest. He was of age, and among the clustering homoriums of the females of his race which hung suspended in the maturing nurseries of Agrahan was a woman who would share his pride of race and rejoice with him under the moon.

As the massive metallic portals of the homorium swung inward, a great happiness came upon him. The swarming masters had instructed him wisely as he lay maturing under the modified lunar rays in the nursery homorium.

He knew that he was a man and that the swarming masters were the descendants of the chitin-armored, segmented creatures called insects, which his ancestors had once ruthlessly despised and trampled under foot. At the front of his mind was this primary awareness of origins; at the back a storehouse of geologic data.

He knew when and why his race had succumbed to the swarming masters. In imagination he had frequently returned across the wide wastes of the years, visualizing with scientific accuracy the post-Pleistocene glacial inundations as they streamed equatorward from the poles.

He knew that four of the earth's remaining continents had once lain beneath ice sheets a half mile thick, and that the last pitiful and cold-weakened remnants of his race had succumbed to the superior sense-endowments of the swarming masters in the central core of a great land mass called Africa, now submerged beneath the waters of the southern ocean.

The swarming masters were almost godlike in their endowments. With their complex and prodigious brains, which seemed to Maljoc as all-embracing as the unfathomable forces which governed the constellations, they instructed their servitors in the rudiments of earth history.

In hanging nursery homoriums thousands of men and women were yearly grown and instructed. The process of growth was unbelievably rapid. The growth-span of the human race had once embraced a number of years, but the swarming masters could transform a tiny infant into a gangling youth in six months, and into a bearded adult, strong-limbed and robust, in twelve or fourteen. Gland injections and prism-ray baths were the chief casual agents of this extraordinary metamorphosis, but the growth process was further speeded up by the judicious administration of a carefully selected diet.

The swarming masters were both benevolent and merciless. They despised men, but they wished them to be reasonably happy. With a kind of grim, sardonic toleration they even allowed them to choose their own mates, and it was the novelty and splendor of that great privilege which caused Maljoc's little body to vibrate with intense happiness.

The great metallic portal swung open, and Maljoc emerged into the starlight and looked up at the swinging constellations. Five hundred feet below, the massive domed dwellings of Agrahan glistened resplendently in the silvery radiance, but only the white, glittering immensity of the Milky Way was in harmony with his mood.

A droning assailed his ears as he walked along the narrow metal terrace toward the swinging nurseries of the women of his race. Several of the swarming masters were hovering in the air above him, but he smiled up at them

without fear, for his heart was warm with the splendor of his mission.

The homoriums, sky promenades, and air terraces were suspended above the dwellings of Agrahan by great swinging cables attached to gas-inflated, billowing air floats perpetually at anchor. As Maljoc trod the terrace, one of the swarming masters flew swiftly between the cables and swooped down upon him.

MALJOC recoiled in terror. The swarming masters obeyed a strange, inhuman ethic. They reared their servitors with care, but they believed also that the life of a servitor was simply a little puff of useful energy. Sometimes, when in sportive mood, they crushed the little puffs out between their claws.

A chitin-clad extremity gripped Maljoc about his middle and lifted him into the air. Calmly then, and without reversing its direction, the swarming master flew with him toward the clouds.

Up and up they went, till the air grew rarefied. Then the swarming master laid the cool tips of its antennæ on Maljoc's forehead and conversed with him in a friendly tone.

"Your nuptial night, my little friend?" it asked.

"Yes," replied Maljoc. "Yes—yes—it is."

He was so relieved that he stammered. The master was pleased. The warmth of its pleasure communicated itself to Maljoc through the vibrations of its antennæ.

"It is well," it said. "Even you little ones are born to be happy. Only a cruel and thoughtless insect would crush a man under its claw in wanton pleasure."

Maljoc knew, then, that he was to be spared. He smiled up into the great luminous compound-eyes of his benefactor.

"It amused me to lift you into the air," conveyed the master. "I could see that you wanted to soar above the earth; that your little wingless body was vibrant with happiness and desire for expansion."

"That is true," said Maljoc.

He was grateful and—awed. He had never before been carried so high. Almost the immense soaring wings of the master brushed the stratosphere.

For a moment the benevolent creature winged its way above the clouds, in rhythmic glee. Then, slowly, its body tilted, and it swept downward in a slow curve toward the sky terrace.

"You must not pick a too-beautiful mate," cautioned the master. "You know what happens sometimes to the too beautiful."

Maljoc knew. He knew that his own ancestors had once pierced the ancestors of the swarming masters with cruel blades of steel and had set them in decorative rows in square boxes because they were too beautiful. His instructors had not neglected to dwell with fervor on the grim expiation which the swarming masters were in the habit of exacting. He knew that certain men and women who were too beautiful were frequently lifted from the little slave world of routine duties in the dwellings of the masters and anæsthetized, embalmed, and preserved under glass in the museum mausoleums of Agrahan.

The master set Maljoc gently down on the edge of the sky terrace and patted him benevolently on the shoulder with the tip of its hindermost leg. Then it soared swiftly upward and vanished from sight.

Maljoc began to chant again. The Galaxy glimmered majestically in the heavens above him, and as he progressed along the sky promenade he feasted his gaze on the glowing misty fringes of stupendous island universes lying far beyond the milky nebulæ to which his little race and the swarming masters belonged.

Nearer at hand, as though loosely enmeshed in the supporting cables, the

pole star winked and glittered ruddily, while Sirius vied with Betelgeuse in outshining the giant, cloud-obscured Antares, and the wheeling fire chariot of the planet Mars.

Above him great wings droned, and careening shapes usurped his vision. He quickened his stride and drew nearer, and ever nearer, to the object of his desire.

THE NURSERY homorium of the women of his race was a towering vault of copper on the edge of the cable-suspended walk. As he came abreast of it he began to tremble, and the color ebbed from his face. The women of his race were unfathomable, dark enigmas to him—bewildering shapes of loveliness that utterly eluded his comprehension.

He had glimpsed them evanescently in pictures—the swarming masters had shown him animated pictures in colors—but why the pictures enraptured and disturbed him so he did not know.

For a moment he stood gazing fearfully up at the massive metal portal of the homorium. Awe and a kind of panicky terror contended with exultation in his bosom. Then, resolutely, he threw out his chest and began to sing.

The door of the homorium swung slowly open, and a dim blue light engirded him as he stood limned in the aperture. The illumination came from deep within the homorium. Maljoc did not hesitate. Shouting and singing exultantly, he passed quickly through the luminous portal, down a long, dim corridor, and into a vast, rectangular chamber.

The women of his race were standing about in little groups. Having reached maturity, they were discussing such grave and solemn topics as the past history of their kind and their future duties as obedient servants of the swarming masters. Without hesitation, Maljoc moved into the center of the chamber.

The women uttered little gasping cries of delight when they beheld him. Clustering boldly about him, they ran their slim white hands over his glistening tunic and caressed with fervor his beard and hair. They even gazed exultantly into his boyish gray eyes, and when he flushed they tittered.

Maljoc was disturbed and frightened. Ceasing to sing, he backed away precipitously toward the rear of the chamber.

"Do not be afraid," said a tall, flaxen-haired virago at his elbow. "We will not harm you."

Maljoc looked at her. She was attractive in a bold, flamboyant way, but he did not like her. He tried to move away from her, but she linked her arm in his and pulled him back toward the center of the chamber.

He cried out in protest. "I do not like you!" he exclaimed. "You are not the kind of woman——"

The amazon's lips set in hard lines. "You are far too young to know your own mind," she said. "I will be a good wife to you."

As she spoke, she thrust out a powerful right arm and sent three of her rivals sprawling.

Maljoc was panic-stricken. He pleaded and struggled. The woman was pulling him toward the center of the chamber, and two of the other women were contending with her.

The struggle terminated suddenly. Maljoc reeled, lost his balance, and went down with a thud on the hard metallic floor. The metal bruised his skull, stunning him.

FOR SEVERAL seconds a wavering twilight engulfed Maljoc's faculties. Needles pierced his temples, and the relentless eyes of the amazon burned into his brain. Then, slowly and painfully, his senses cleared, and his eye-

lids flickered open in confused bewilderment.

Two compassionate blue eyes were gazing steadily down at him. Dazedly, Maljoc became aware of a lithely slim form, and a clear, lovely face. As he stared up in wonderment, the apparition moved closer and spoke in accents of assurance.

"I will not let them harm you," she said.

Maljoc groaned, and his hand went out in helpless appeal. Slim, firm fingers encircled his palm, and a gentle caress eased the pain in his forehead.

Gently he drew his comforter close and whispered: "Let us escape from these devils."

The woman beside him hesitated. She seemed both frightened and eager. "I am only eight months old," she told him in a furtive whisper. "I am really too young to go forth. They say, too, that it would be dangerous, for I am ——" A blush suffused her cheeks.

"She is dangerously beautiful," said a harsh voice behind her. "The instructors here are indifferent to beauty, but when she goes forth she will be seized and impaled. You had better take me."

Maljoc raised himself defiantly on his elbow. "It is my privilege to choose," he said. "And I take this woman. Will you go forth with me, my little one?"

The woman's eyes opened widely. She looked slowly up at the amazon, who was standing in the shadows behind her, and said in a voice which did not tremble: "I will take this man. I will go forth with him."

The amazon's features were convulsed with wrath. But she was powerless to intervene. Maljoc was privileged to choose, and the woman was privileged to accept. With an infuriated shrug she retreated farther into the shadows.

Maljoc arose from the floor and gazed rapturously at his chosen mate. She did not evade his scrutiny. As Maljoc continued to stare at her, the strained look vanished from his face and mighty energies were released within him.

He stepped to her and lifted her with impassioned chantings into the air. Her long hair descended and enmeshed his shoulders, and as he pressed her to his heart her arms tightened clingingly about him.

The other women clustered quickly about the exultant couple. Laughing and nudging one another, they examined the strong biceps of the bridegroom and ran their fingers enviously through the woman's dark hair.

Maljoc ignored them. Holding his precious burden very firmly in his muscular arms, he walked across the chamber, down the long outer corridor, and out through the massive door. Above him in another moment the Cyclopean luminous cables loomed beneath far-glimmering stars. He walked joyfully along the sky promenade, chanting, singing, unquenchably happy in his little hour of triumph and rapture.

The woman in his arms was unbelievably beautiful. She lay limply and calmly in his embrace, her eyes luminous with tenderness. Orion gleamed more brightly now, and the great horned moon was a silver fire weaving fantastically in and out of the nebulæ-laced firmament.

As Maljoc sang and chanted, the enormous droning shapes above him seemed mere alien intruders in a world of imperishable loveliness. He thought of himself now as lord of the earth and the sky, and the burden in his arms was more important in his sight than his destiny as a servitor and the benefits which the swarming masters had promised to bestow upon him if he served them diligently and well.

He no longer coveted slave joys and gratifications. He wished to be for-

ever his own master under the stars. It was a daring and impious wish, and as if aware of his insurgent yearnings a great form came sweeping down upon him out of the sky. For an instant it hovered with sonorously vibrating wings in the air above him. But Maljoc was so obsessed with joy that he ignored the chill menace of its presence. He walked on, and the woman in his arms shared his momentary forgetfulness.

THE END of their pathetic and insane dream came with a sickening abruptness. A great claw descended and gripped the woman's slim body, tearing her with brutal violence from Maljoc's clasp.

The woman screamed twice shrilly. With a harsh cry, Maljoc leaped back. As he shook with horror, a quivering feeler brushed his forehead and spoke to him in accents of contempt:

"She is too beautiful for you, little one. Return to the homorium and choose another mate."

Fear and awe of the swarming masters were instinctive in all men, but as the words vibrated through Maljoc's brain he experienced a blind agony which transcended instinct. With a scream he leaped into the air and entwined his little hands about the enormous bulbous hairs on the master's abdomen.

The master made no attempt to brush him off. It spread its gigantic lacy wings and soared swiftly into the sky. Maljoc tore and pulled at the hairs in a fury of defiance. The swiftness of the flight choked the breath in his lungs, and his eyes were blinded by swirling motes of dust. But though his vision was obscured, he could still glimpse dimly the figure of the woman as she swung limply in the clasp of the great claw a few yards above him.

Grimly, he pulled himself along the master's abdomen toward the claw. He pulled himself forward by transferring his fingers from hair to hair. The master's flat, broad stinger swung slowly toward him in a menacing arc, but he was sustained in his struggle by a sacrificial courage which transcended fear.

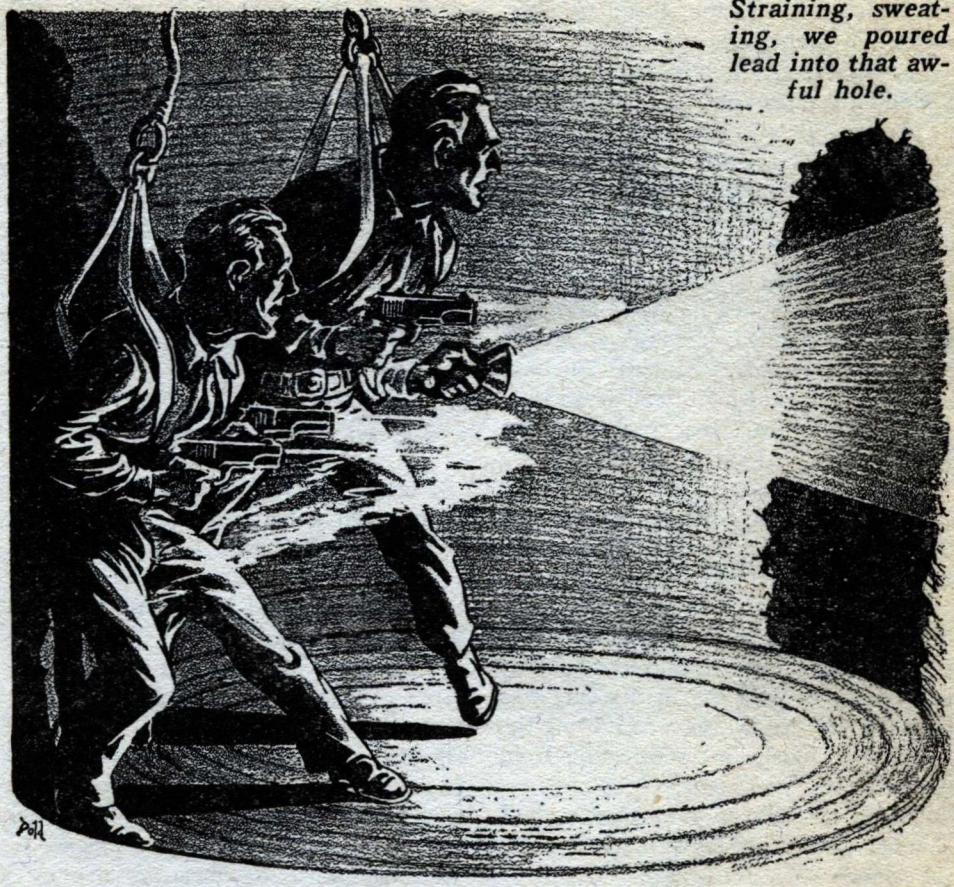
Yet the stinger moved so swiftly that it thwarted his daring purpose. In a fraction of time his brain grew poignantly aware that the stinger would sear his flesh before he could get to his dear one, and the realization was like a knife in his vitals. In despair and rage, he thrust out his puny jaw and sank his teeth deep into the soft flesh beneath him. The flesh quivered.

At the same instant the master swooped and turned over. Maljoc bit again. It screeched with pain and turned over and over, and suddenly, as it careened in pain, a white shape fell from its claw.

Maljoc caught the shape as it fell. With one hand clinging to the hair of the master's palpitating abdomen, and the other supporting the woman of his choice, he gazed downward into the abyss.

A mile below him the unfriendly earth loomed obscurely through riven tiers of cirrus clouds. But Maljoc did not hesitate. With a proud, exultant cry he tightened his hold on the woman and released his fingers from the hair.

The two lovers fell swiftly to the earth. But in that moment of swooning flight that could end only in destruction, Maljoc knew that he was mightier than the masters, and having recaptured for an imperishable instant the lost glory of his race, he went without fear into darkness.



Straining, sweating, we poured lead into that awful hole.

Beyond the Spectrum

by Arthur Leo Zagat

Illustrated by Elliot Dold

TANASOTA! Tanasota! All out for Tanasota!"

The welcome cry of the brakeman signaled the end of my trip. The "all" meant me, I noted; no one else escaped from the sooty discomfort of the decrepit accommodation local.

The old depot platform of the little Florida town was deserted. Strangely so, for the well-kept shops, the trim streets radiating from the station park would seem to indicate that this was a bustling, modern, ultra-American settlement. A tan and blue signboard caught my eye:

WELCOME TO TANASOTA
POPULATION 5,000
HELP US GROW
TANASOTA CHAMBER OF COMMERCE
Henry Maury, President

But the blazing sun had park and streets to itself; no line of autos banked

the high curbs of the gleaming sidewalks, not even a dog moved.

Far up the main street of the town a cloud of dust appeared, darting toward me. It solidified into an automobile approaching at breakneck speed. In moments it was skidding to a stop at the platform—and Tom Denton was jumping from it.

I was thunderstruck at the change two weeks had made in him. His face was gray and lined, his smile of greeting palpably forced. And the laughing humor of his eyes had given place to—was it grief, fear, that peered at me from those burnt-out orbs?

"Ed, old man! Thank God you've come!" The hand that seized mine was trembling. "Quick! Hop in and we'll get away from here!"

There was an urgency, a driving haste in his voice that choked back my questions. Before I quite realized what was happening, he had me in his car, was hunched over the wheel, was hurling the machine furiously in the direction from which he had just come.

"What the hell is going on here?" I shouted against the wind that whipped the sounds away from me.

"Wait! Can't talk now. Got to go like the devil, or——" The rest was lost in the noise of our passage.

The town whizzed by in a blur and we were out in the open. I caught glimpses of tall palms lining the road, of green lawns and white-sanded driveways curving up to vine-clad houses. I had a feeling there was something wrong about those houses. I strained through the tears evoked by the rush of air and realized that, hot as the day was, every door was tight shut, every window closed and blinded by shades. Nor was there any one to be seen on road or lawn.

Definitely a pall of fear lay heavy over the neighborhood. What was its cause, I wondered. One thing was certain. I had been right in my interpretation of the queer telegram that had plucked me from my quiet lab at Kings University in New York and had brought me post-haste to this beleagured southern town.

I knew it by heart, that message; had reread it a hundred times on the dragging journey:

TANASOTA FLA
PROF EDGAR THOMASSON
PHYSICS DEPT
KINGS UNIVERSITY NEW YORK
DO NOT NEED YOU STOP NO TROUBLE STOP ON NO ACCOUNT TAKE SIX FORTY ONE FROM NEW YORK TO-DAY NOTNED MOT

I must have looked a goggle-eyed ass as I stared stupidly at the yellow slip. It hadn't made sense. Going to Florida had been as far from my mind as going to the moon. And I knew no one with that queer name.

Then a thought struck me. Tanasota! Wasn't that where the Dentons had gone two weeks before? The odd signature leaped out at me. Notned Mot. *Tom Denton,* of course, written backward. Then—suddenly it was clear as crystal—the message too was to be read backward, its meaning reversed! With growing excitement I translated the cryptic words: "Need you. Trouble. Be sure to take the six forty one from New York to-day."

I had just time to make that train. It wasn't till I had sunk panting into my seat in the Pullman that I had time to wonder what it was all about. The Dentons were my best friends; tall, broad-shouldered Tom with his laughing eyes and endearing smile, and Mary, whose shimmering brown hair came to the middle of her husband's barrel chest. Tom and I had been roommates at Kings, and although he had gone into geology and I into pure physics, nothing had ever broken our comradeship. And Mary—well, it wasn't my fault that her name wasn't Mary Thomasson.

Tom had done some rather good work

at his specialty, the finding of subterranean water in hitherto dry locations, but hadn't made much money. So we had had a big celebration when the offer came from Tanasota. A typical boosters' town, with a super-active chamber of commerce, we gathered. They had concocted a scheme for making the region a tourists' paradise; hotel, casino, swimming pool, tennis courts, links, and all the rest of it.

All contracts had been let and work was about to start when the artesian wells suddenly failed. Catastrophe, ruin, stared them in the face. In this emergency they had heard of Denton. The generous proposition they made included the rent-free use of a bungalow, and the couple had departed, jubilant.

WE ROUNDED a curve and I saw a low white house, a flutter of white skirts at the just-opening door. Brakes screeched, the car skidded through dust, slewed half around. There was a crash, and the machine lurched sickeningly. The hood sank to the right and didn't rise. I was surprised to find I was still in my seat—uninjured.

Tom paid no attention to the wheel that had smashed against a roadside boulder. With a laconic, "Come on. Quick!" he seized my bag and ran up the path.

"All right, Mary?"

"Safe, dear. And you?"

"Not a sign of them."

A sigh of relief trembled on her lips. Tom picked up a stout iron bar and set it across the locked door in sockets that had been provided for it. Mary turned to me.

"Ed! I knew you would understand and come." Her face was lined with worry and sleeplessness. And in her eyes was the same haunting fear that had startled me in Tom's. I kissed her, and her lips were icy-cold under mine.

"Are you two going to have mercy on a fellow and tell him what this is all about?"

Tom's mouth twisted in a pathetic attempt at his familiar smile. "All hell's broke loose, Ed. Literally, I think. But sit down; it's a long story."

The cozy living room showed Mary's genius for home-making. But, although the midday sun was blazing outside, the chamber was illuminated only by shaded electric bulbs. The two large windows were tightly closed, dark blinds were pulled down to the very sill, and a network of steel wire mesh had been nailed over all.

The place was a fortress!

"You know what brought me down here," Tom began. "After my first inspection, I was puzzled, still am. From surface indications there should be no difficulty in finding water in this region. The wells that failed run from seven hundred to a thousand feet deep. I decided to extend one lying about a quarter mile south of here, one about nine hundred feet.

"I had my drill set up. At the bottom of the hole we found a stratum of hard Archæozoic Gneiss, the earliest formed of all rocks, certainly no younger than eighty millions of years. Ordinarily I should have given up all hope of finding water in that spot as soon as I discovered this formation. But it was my theory that some minor earthquake had opened a rift through which the underground stream had dropped to a lower level. So I continued drilling.

"We hadn't gone down fifty feet when the lower section of the drill dropped down into nothingness! I had what was left of the drill raised, and since it was growing dark, stopped operations for the day, leaving old Tim Rooney to watch over the material.

"In the morning I went out bright and early. I expected to find Tim asleep—there wasn't any real need for leaving him out there, but I *was* put out

to discover that he was nowhere in sight.

"The next minute I forgot all about the old codger's dereliction. For, Ed, that hole, which the night before had been only four inches in diameter—had widened to a span of three feet! Not only right at the top—just as far down as I could see—*and the focusing searchlight I flashed down there sent its beam for at least four hundred feet!* There isn't a boring machine on earth that could do a job like that in the twelve hours since I had left the spot! It was downright impossible!

"My first thought was to get hold of Rooney and find out what had happened. I sent a youngster chasing to his home.

"My messenger returned. Tim's wife hadn't seen him since he had left to take up his vigil the night before. I cast about. I found his tracks, where he had walked about for a while. Then—one spot—they vanished. But there was a long furrow in the loam, as if a heavy body had been dragged along the ground. And that furrow led straight to the opening—ended there.

"No. Old Tim's wife hadn't seen him. Nor has anybody else since! *He was the first.*"

He whispered the last sentence. Then a wave of emotion seemed to overwhelm him, to make it impossible for him to go on. He looked off into the distance, dumb misery on his face. His wife put out her hand and stroked his.

"It isn't your fault, Tom; it *isn't* your fault, no matter what they say."

Apparently he did not hear. Again he was whispering, to himself, not to us. "He was the first—but not the last. And the end is not yet."

In the silence that followed I became aware of a sound—it seemed to be at the window. Very faint it was—a sucking, sliding noise as if some one were drawing a wet rubber sponge across the pane. I thought I imagined it, till I saw the others staring at the window. Mary's hand was at her breast. From somewhere Tom had produced a squat, ugly revolver.

Then the sound stopped. Without explanation, Tom plunged back into his story.

"I tried not to believe the evidence of the furrow I had found. I organized searching parties, sent them out in all directions. But toward evening I was convinced at last that old Tim was gone.

"Of course, he *might* have fallen down the hole by accident. But something told me this was not so. I telegraphed for a windlass that would enable me to go down the shaft. It would arrive the next morning. Meantime I decided I would watch the opening during the night. I couldn't rest. I must do something to solve the mystery.

"Jim Phelps, a splendid young chap who had been acting as my assistant, insisted on sharing my vigil. There was no moon, that night, and the sky was overcast. We built a little fire for light. The flip of a coin decided that the first watch was to be Jim's. I stretched out on the ground.

"I had thought I would be unable to sleep, but the strain of the day and the warm balmy air had their effect. How long I slept I do not know. But I was snapped awake by a shriek. In the dim light of the dying fire, I saw Jim at the very edge of the shaft, his whole body contorted in a terrific struggle against—*nothing*. There was nothing there—I swear it—but the boy was fighting, lashing out. His heels, planted deep, were being *dragged* through the ground against the utmost efforts of his tensed body!

"I had almost reached him when he suddenly collapsed. He rose a foot in the air—and disappeared down that infernal hole. My grasping hand just touched his hair as he descended.

"At my feet lay the searchlight. I snatched it up and pressed the button.

I saw him, twenty-five feet below. He wasn't falling; *he was drifting down*, as if something were carrying him! I watched his limp body descending, vivid in the bright light. I could pick out every line of his white face, every striation in the smooth side of the vertical tunnel. There was nothing there, yet *something* was carrying him down.

"God knows I'm no coward, but I turned and ran from that accursed spot, ran with the horrible fear of the Unknown tearing at my brain; ran until, after countless years of running, I saw the door of this cottage."

MARY broke in:

"I was awakened by a choked cry outside, and the thud of something falling against the door. It took me an hour to revive him. And then, when he gasped out what he had seen, I thought with a chill at my heart that he had gone stark, raving crazy."

"The chief of police and the village president were quite sure of it the next morning," Tom resumed. "In fact, they were convinced that I myself had thrown both men down the hole in a maniacal seizure. They were leading me out to take me to the county hospital, when something occurred that changed their minds.

"There are no other dwellings between this house and that—that place. There we were—I was just stepping into the chief's car. Mary, in tears, was pleading with him not to take me. Suddenly some one pointed. A wild figure was coming down the road, reeling from the fence on one side to the rails on the other, tossing its arms in the air. It stumbled and fell, but kept on crawling toward us.

"I was the first to run up the road, the others close behind. It was Jim! I called to him, and he lifted his face to me. Where the eyes should have been were two empty holes—two deep, red pits—staring out at me from the mask of white dust! He lifted that awful face to me, *and laughed*.

"Out of poor Jim's babblings and gibberings we could strain not one morsel of information as to what lay at the bottom of that infernal bore. But when the doctor examined those scarred eye sockets, he turned to us with sheer unbelief.

"'I can't understand this, gentlemen,' he said. 'There is every evidence here that a marvelous piece of surgery has been performed. Not only the eyeballs themselves have been excised; but the optic nerves, in their entirety, and all the complex system of muscles that enable the eyes to do their work properly. There are only one or two surgeons in the world who could perform such an operation!'

"Do you realize what that meant, the astounding implication of Dr. Wells' finding? This thing that came from below, this invisible thing, had intelligence, knowledge, skill, equal to our own. Think of it!

"There was no longer any question of my sanity. The town authorities, in the persons of the president and the police chief, were now convinced that a blacker menace confronted them than the mere presence of a homicidal maniac. They held a whispered consultation in the corner of the hospital reception room where we had received Dr. Wells' report. Then they called me over.

"President Maury did the talking. 'Listen, doc,' he began. 'We've got to keep this thing damn quiet, or——'

"'Quiet!' I exploded. 'Hell, man, what we've got to do is telegraph the governor for the State police, and the university for the best men they've got on paleontology and physics, and get busy trying to find out just what there is down there, and how to fight it!'

"'Yeah, and have the papers get hold of it. Nothing doing! By the time it was all over, Tanasota would be ruined

forever as a resort. People would never forget it.'

"I was astounded. 'How on earth can you be thinking of money when there may be thousands of those invisible things, whatever they are, ready to pour out and carry off everybody around here?'

"'Might as well be killed by them as starve to death. There ain't nobody for fifteen miles around who ain't stuck all they've got, includin' what they could raise by mortgages on their houses and land, into this development. The contracts is all signed. If we stop now, all Tanasota township will be ruined. Nope, Tanasota's got to handle this itself; and, by jingo, Tanasota kin do it!'

"We set to work at once. Steel rails were crisscrossed over the opening, and a six-foot-high mound of reënforced concrete erected on this armored base. By evening the concrete had set. Thomas was almost cheerful.

"It was dark when I got home. Janey Ruxton, a sweet kid just home from Miami University, was here, chattering away to Mary. We played three-handed bridge till a little after nine. Then Janey left. She wouldn't let me take her home; it was just a bit up the road and nothing could possibly happen to her. Shortly after Mary thought she heard a scream, but I laughed at her. It was just the screech owl that had startled our city ears several times before.

"The next morning the phone rang at about ten. It was Mrs. Ruxton. When was Janey coming home?

"The receiver shook in my hand. 'Why, Mrs. Ruxton, didn't she get home last night?'

"'No! She said when she went out that she might possibly sleep there. Mrs. Denton thought you might be detained at your work till late. Don't tell me she isn't there!'

"I mumbled something about having come in late and having just waked up. I'd ask Mary and call her back. I had to think. Could it be that—— Just as I hung up, Mary called to me that Thomas and Maury were coming up the path.

"'They seem excited! I wonder what's happened?' she said.

"There was something ludicrous in the way they trotted their pendulous paunches up the path. But the stricken look on Thomas' face held no humor. He called to me almost before I had the door open.

"'Doc, doc, have you seen anything of Jimmy?'

"Jimmy was his sixteen-year-old son.

"'No, I haven't—why do you ask?'

"'Got to find him, got to find him!'

"That's all I could get out of the father. But the village president explained. Young Jimmy had gone out before dawn; he was to join some of the other boys fishing. A half hour before, one of his chums, having returned, had phoned to inquire why he had not met the crowd.

"The same thought was in all our minds, I think. 'Wait here,' I snapped, 'I've got a hunch.' Before there could be a reply, I was down the path and in my car.

"I shot the machine out into the field and straight up to the solid cairn we had made the day before. I almost crashed into the stone. For—it hit me in the face like a physical blow—straight through the top of that huge boulder of concrete and steel a circular cavity yawned—three feet across! When I could tear my staring eyes away from that black hole I saw, at the foot of the mound, the crumpled and broken fragments of a fishing rod!

"I couldn't have been away long, for when I got back here Thomas and Maury were just starting to follow me. I gasped out my discovery—careless how I hurt these men whose obstinacy I blamed.

"'It's your own damn fault,' I blazed,

alternately hot with anger and chilled with horror. 'If it hadn't been for your being stubborn, this wouldn't have happened! *Now* will you let me call for help?'

"Thomas held himself erect by one shaking hand on the lintel. His white face turned in piteous appeal toward Maury. But, though his eyes bulged with horror from a face that was green and gray by turns, the other could not be moved from the stand he had taken. He thundered an emphatic 'No' to my demand, and Thomas' silent entreaty.

"I stormed and raved, and Mary added her pleading, but Maury was obdurate. From somewhere the stricken father summoned strength enough to second his superior's fiat.

"'Whatever you say, Hen,' he mumbled brokenly. 'Whatever you say, I'll stick to. You know best.'

"In answer to my threat to take matters in my own hands, Maury laid down the edict flatly:

"'No telephone from you goes out of the local exchange, nor no letter nor telegram that I don't O. K. And you'd better not try to leave the township, 'cause you won't get far.'

"I gave up. But Mary broke in. 'Tom,' she said, 'Edgar Thomasson was to leave to-day for his visit to us. We'd better telegraph him not to come, or Mr. Maury will think we tricked him.' She was writing as she talked. 'Here, will this do?' I wondered what she was driving at, but played along.

"She handed what she had written to the president. He spelled out the message. 'Looks all right,' he said at last; 'but what's this here name signed at the bottom?'

"'Only Tom's name spelled backward. The boys have always signed their letters to one another that way. They won't tell me why; some secret society hocus pocus, I suppose.'

"Maury could understand that. The vast expanse of his vest was the background for a half-dozen varied fraternal emblems. 'O. K. You kin send it. Here, I'll take it in to the depot myself.' He stuffed the paper into a pocket. 'I'll get John home now, and then get busy on the phone tellin' everybody to look out. Meantime, doc, see what you kin figger out. Don't worry about expense; I'll see that you get all the money and help you need.'

"They went out, Thomas walking like a man in a dream.

"That's about all. They haven't done a damn thing since except get an armored car somewhere and patrol the roads with it. Lot of good that does! And they've got all the houses for miles around locked up like this one. There the stubborn fools sit in the dark, while those things prowl around, groping, groping, at the doors and windows. Sooner or later they will find a way to break through our defenses. And then——"

TOM BURIED his face in his hands. "It's my fault," I heard him mutter; "it's my fault."

I wanted to argue with him about it, but somehow I couldn't say anything. For long minutes there was silence, flat, imponderable. Finally he looked up with a twisted smile.

"I'm all right now. Sorry I'm putting on such a baby act, but it's got me, Ed. You've heard the story now; what do you think of it?"

"I don't know what to think of it, Tom. One thing, though, I've been wondering about. I take it that there's been no further attempt at confining these mysterious visitants. How is it then that they have not reached other communities?"

Denton shrugged. "They do not seem to wander far from the shaft. Perhaps something in conditions on the surface reacts on them unfavorably and limits the time they can stay above ground.

Their tracks do not appear further than a mile away."

"Their tracks? Then they leave a definite impression on the ground?"

He rose. "Come; I'll show you."

I followed him to the nearer window. He listened tensely, ear close against the mesh. Mary went to the other window and listened too. Again I remarked the ravages, the horror through which she was living, had made on her winsome face.

"Hear anything, dear?" Tom called.

"Nothing, Tom; I guess it's safe." But the girl remained crouched taut against the mesh.

"Look here, Ed." Tom poked a long paper cutter through the screen and pushed aside an edge of the blind. His gun was in his other hand. I bent over and peered through the opening.

I could see just a small patch of bare, soft soil. But all over that patch was the spoor of the monster—six thin lines radiating from a small round depression—footprints the like of which the upper world had never seen. Twelve inches from end to end, and four across. Somehow those molded markings in the ground made the horror real to me, more real than all Tom's vivid tale.

Then that occurred that bristled the hairs at the nape of my neck with ancestral fear, that drove the blood from my face, but held my staring eyes riveted to the little strip of loam. One by one new tracks appeared, forming whole in the matrix of that soil.

Something was walking across the front of the house—*something that I could not see!*

My throat was dry—so dry that I could not cry out. That weirdly forming progression of telltale marks passed beyond the range of vision, but another set of prints began to form. *Another set that marched straight toward me!*

Suddenly an eye was looking into mine through the glass—a blue eye that did not wink! An eye, and nothing more! Tom must have seen it too, for the black shade dropped between me and the eye. Then, right there in front of me, I heard again that sucking, sliding noise. From left to right across the pane it moved, and the blood froze in my veins.

A crash of smashing glass!

The black shade before me bellied inward, flattened against the wire mesh and was held there by the force of something that crushed against it.

"Shoot, Tom, shoot! It's coming in!"

That cry seemed to tear from out my very vitals. At top and side the screen was tearing away from the stout nails that held it! Tom's gun roared—I felt the scorch of its flame on my arm as I thrust at the screen, fighting to hold back the thing that was pushing in, the thing whose power made nothing of my puny strength. Again the gun roared. I felt the invader flinch. White rents appeared in the shade, rents through which the unobstructed sun leered in. A form was outlined against the bulging cloth—Tom fired again!

I felt the thing falter and fall away.

I fell back, wilting from the terrible exertion. Suddenly the room was flooded with light—sunlight! As I whirled about, a scream ripped through me. Mary's scream!

The other window was stripped bare of shade and screen. In the center of the room, struggling against—blankness—was my chum's wife. Her hair had fallen about her shoulders, her eyes were staring from a terror-distorted face, her mouth was open to scream again. Her little fists were flailing at the vacancy before her, her legs, lifted from the ground, were driving against the nothingness that held her, the unseen thing that was carrying her inexorably toward the gaping window!

We dove together to her aid—Mary's form shielded her captor from Tom's gun. I reached her. Something twisted

around my waist and lifted me from my feet. My hands tore at the cold, hard, *invisible* thing that writhed but held me fast. I thought I saw brown eyes gleaming in midair. Then I was hurtling across the room, to thud crushingly against the wall. Tom, caught in the invisible grip, fought for a second, then he too was sliding helpless along the floor. With a last moaning screen, Mary soared through the shattered window and disappeared.

BRUISED, DAZED, horror-filled, I dragged myself up, reeled across toward the jagged opening. Tom was before me. He scrambled through, reckless of the broken glass, the tearing wire, and I after him.

Already a hundred feet away, floating, apparently unsupported, some three feet above a flat field, I saw Mary. She had fainted, mercifully. She rose over a fence, flew southward up the road. I realized that I was running, giving everything that was in me to a burst of speed greater than I believed myself capable of. Tom was ahead of me. His gun was still in his hand, but there was nothing at which to shoot save the figure of his wife.

We leaped the fence, were dashing up the road. I cast one despairing glance back at the car—if only that wheel were not smashed we might have a chance. As it was, though, I ran on after Tom's speeding figure—reckless of the agony that burned my lungs. Despair flooded me. The thing we pursued sped faster than our uttermost efforts could drive us.

Little spurts of dust showed in the road, only evidence that the unconscious girl was not being borne away from us by some wind that we could not feel. They ceased, but the tall grass in a field at the left swayed and was trampled down under the weight of an invisible runner. Ahead I could see a rounded gray hump, knew it for the futile barrier that had been erected against the incredible menace from below. Dimly I was aware of a clatter from somewhere ahead on the highway, the barking exhaust of a gasoline motor. But I was rushing through the field now, my straining eyes fixed on Tom's running form, and on Mary ahead.

She rose to the mound—dipped within. Tom reached it in a final spurt. I was only moments behind him. He beat furiously with his hand and his gun against the hard rock. As I seized and dragged him away his hand was a torn and bleeding lump.

"They've got her, they've got her!" His voice was a high-pitched shrill monotone. "Oh, damn them, damn them! *Let me go!*"

He was fighting against me—I couldn't hold him against his maniacal strength. He broke away and was scrambling up the stone.

"I'm going down for her!"

"Wait, you fool!" I had hold of his kicking foot. "Wait! I'll go with you —wait just a moment." Somebody was beside me, an arm reached past me, a hand clamped around Tom's ankle. Together we pulled him back.

Four men were crowded around us, their canvas belts heavy with holstered revolvers and studded with cartridges. Behind them bulked the gray-painted, awkward shape of an armored car.

Tom was quieter now, but he still muttered in a nerve-racking monotone: "I've got to go down and save her eyes; I've got to go down and save her eyes."

"Tom!" I shouted as if he were deaf. "Tom, stop that damn muttering and listen to me!"

But he looked at me wildly and mumbled: "I've got to go down and save her eyes."

Time for heroic measures. I gritted my teeth and slapped him stingingly on the cheek. He rubbed the red mark my hand had left, and sanity came back to him.

"Oh, Ed," he said brokenly, and the agony in his tones wrung me. "They've got her down there! I *must* go down to save her. Please don't hold me back!"

"Of course we're going down." I fought to keep the hysteria out of my own voice. "But jumping down a thousand-foot hole and getting smeared all over the bottom isn't going to do Mary any good. Now, is it?"

"No, Ed, you're right. I—I don't know what I was thinking of. But when I saw her go down there and remembered the empty sockets in Jim Phelps' face and the way he laughed——"

One of the men from the armored car was speaking.

"Gee, doc, it sure is tough! We saw her swinging along the road and you guys after her. But we couldn't do nothing—if we'd let loose with the machine gun we'd have cut her to pieces."

"Maybe—maybe it would have been better if you had. But it's all right, boys. I know you would have helped her if you could. I told Chief Thomas this patrol of yours was no earthly good."

During this interchange my mind was racing. What were these monsters, these invisible things of horror? Were they elementals, imponderable phantasms, myths come true?

No! Unseeable they were, but material. Their tread left prints in the mud; grass bent beneath their passage. That had been a very real bulk against which I had struggled at the window. Tom's bullets plunging into it had killed it.

They were not invulnerable.

I twisted to the haggard-faced, quivering Tom, grabbed his arm and dug my fingers into it in my excitement.

"Listen! We've got to get ropes, a searchlight, guns!"

He stared at me wide-eyed, then snapped: "Come on!"

We piled pell-mell into the steel-clad truck, shot all out along the road, our siren rising and falling in howls of warning to a non-existent traffic. Not ten minutes after we were back at the hive-shaped stone.

Were we too late? Even as I snapped my instructions to the hard-faced men of the patrol, the question burned through my mind. In seconds the end of the windlass rope—luckily the reel still stood at the head of the shaft—had been fastened about me in a rude harness. Tom too was looped into the cable, four feet further along. About our waists hung borrowed cartridge belts, each with two holstered automatics.

"Those are explosive bullets," the patrol leader volunteered. "Get one o' them in you and they'll be picking up the pieces for a week."

From my belt swung also a large mirror I had snatched up somewhere, to which I had attached a long cord. In my hand was a powerful flashlight that also could be hooked into my belt at need.

Trailing the long rope, we mounted the concrete. A dizzy look down the long bore. A farewell glance at the sunlit scene, the familiar world I might never see again. No prepossessing sight was this bare field, with its rank, lush grass. Yet at that moment it was very beautiful. Weasel thoughts of fear came flooding in. Almost I turned back, but I saw Tom watching me, saw the look in his eyes. I stepped over the edge and felt the rope harness constrict about me as it took my weight.

"Lower away!" I called.

DOWN, DOWN we went. Light faded and Stygian darkness wrapped round us. I seemed to have passed beyond the boundaries of time and space, seemed doomed to swing forever in this darkness, this otherwhere. Down.

From above came an urgent whisper. "The light, Ed; the light!" I remem-

bered the torch in my hand, pressed the contact. For an instant the sudden glare dazzled me. Then I saw, not six feet below, the bottom of the long shaft. "Hold it, Tom!" I felt the rope vibrate to the double tug of his signal. The wall stopped moving upward.

Just under my feet there was an opening in the side of the vertical tunnel, dark, foreboding. Otherwise my light revealed nothing as it glinted back from wet rock. I unfastened the mirror and lowered it by its cord till the bottom edge rested on the stone floor. It had twisted as it dropped so that it faced the blank wall of the bore. I raised it a bit, twirled the cord in my fingers. Slowly the silvered glass swung around. When it faced the opening, a quick dip of my hand stopped it so. I paid out a little more cord—now it was just right, its surface canted at a forty-five degree angle to the plane of the ground.

The shining rectangle caught the vertical beam from the torch, flashed it out through the arched gap. Mirrored in the glass I saw a long, low gallery, sliced through age-old rock, a gallery that widened and heightened as it swept away from the shaft. The ancient stone was rotted and crumbling, and still wet from the flood that, draining away, had left the well bone-dry. I could make out dark patches that must be openings to caves or other corridors. Nothing moved in the dim subterranean passage, *nothing that I could see.* But I could hear faint scutterings, a low murmuring that should not have been in that vacant pit.

The mirror leaped inward, as if something had grasped it! The cord was jerked from my grasp. The next instant there was something snakelike about my ankle, something that tugged downward—something horribly cold. I grabbed for a gun from my belt, fired down past my feet. In the confined space the roar of the discharge nearly deafened, but there was a muffled explosion below, and the invisible thing around my ankle fell away.

"Down! Down!" I shouted. In a moment my feet skidded on some slimy substance, gripped the ground. I could not see it, but I knew I was standing on the fragments of the thing my explosive bullet had spattered into destruction. First blood to us!

I hooked the torch into my belt, had the other gun in my hand. Just in time! An unseen tentacle coiled around my shoulders. I fired blindly, and it was gone. Tom's two weapons were roaring at my side, spitting lead into vacancy, into emptiness that yet was filled with a vast whisper of alien sound, menacing, horrible. My ears told me there was a ravening horde out there, a throng of strange things gathered to repel our invasion of their immemorial domain. But my eyes saw only blank walls and untenanted space.

We backed against the rock behind us and poured the contents of our weapons into the invisible host. I glimpsed Tom's face—his glittering, half-mad eyes, his lip curled in a snarl. From ahead came a rushing tumult, a hurricane sound as of a torrent flooding up to overwhelm us. My guns were hot in my grasp, my arms weary with firing. But the herd came on. I could hear them, closer, closer. I could see the débris on the labyrinth floor flatten under the masses of unseen feet—the front of that pressed-down space nearer and nearer—fifteen feet—ten feet away. A moment more and we should be overwhelmed, crushed under their thousands. The fire from my guns ebbed—they were empty—no time to reload. Tom's last shot blazed out—and the mad rush halted!

I saw the stigmata of the things' presence retreat.

As we reloaded feverishly, not knowing how soon again the things would sweep to the attack, a voice came out of

the black silence beyond my torchbeam! A human voice!

"Help! Help! Oh, help!"

A woman's voice! *Mary's voice!* Echoing.

"Help"

A great shout from Tom. *"Coming!* Where are you?"

More faintly. "Here, Tom, here." Somewhere far ahead.

There was a sob in Tom's voice and an exultation as he cried: "She's alive, Ed, she's alive!" A giant fury surged through me, and I roared in response:

"She's alive! Give 'em hell!"

We started out, step by step, into the nothingness that was filled from wall to wall with the monsters we fought. We did not need to see them—we blazed straight ahead and knew we could not miss. The thunder of our firing was continuous now as, wordlessly, we gained a certain rhythm so that one fired as the other loaded, loaded as the other fired.

Slowly we forged forward, fighting in a red madness. Beneath our feet we felt the slippery life-fluid of the things we destroyed. Their shattered bodies tripped us, writhing tentacles whipped around us and were torn away as we pressed forward, always forward. And ever the rustle and the murmur of that obscene throng fell back before us, and ever as on one side or other we reached an opening in the wall we paused a moment to listen, and ever Mary's voice came from ahead.

"Here. Here we are. Hurry! Hurry!" That weak voice, guiding.

"Tom. Ed. Come quickly!"

We dared not hurry lest we slip and fall into that shambles underfoot. We dared not hurry lest the dragging rope behind us catch in some projection and tangle us helpless while the things rushed back and swamped us beneath their teeming numbers. Our guns roared and thundered, roared and thundered as we harried them before us. An insane, nightmare battle there in earth's bowels, a thousand feet beneath sunshine and green grass!

A nightmare fight, but even nightmares have an end. We came abreast of a portal in the wall, and in the pause Mary's voice came loud and clear.

"Here! In here! Ed. Tom. Here we——"

It choked.

"Hold them, Tom!" I swung round, threw my light into the cave. Three human forms outstretched on platforms of bare rock. Two quiet—limply recumbent. One struggling, fighting against something unseen that held her down. *Mary!*

Something glittered in the gleam of my torch. A scalpel! Descending toward her face, her eyes! My gun butt jumped in my hand—the scalpel clattered to the ground. Mary's arching body slumped, relaxed, quivered and was still.

"Hold them, Tom!" The rolling crash of his guns told me he was holding them. I plunged in, got to her stony couch. Her face was death-white, her eyelids closed. I bent to her—fearing. Before I could find, grasp her pulse, she stirred, and a long breath whispered from her ashen lips. Her lids quivered. What would I see when they opened? I never knew eternity could be compressed into a half second!

They were open! Her brave eyes looked square into mine!

Oh, thank God! Thank God!

"Ed—I knew you'd come!" Then a sudden fear flared in the eyes I had thought we were too late to save. "Tom! I heard his voice. Is he——"

"Safe. Right outside, fighting like mad. Come; we've got to get out of here." She struggled to rise. I looked at the other two, fearfully quiet. How manage all three? One of us must be free to hold back the things.

Brave girl! She saw, understood.

"Take the others. I'm sure they're still alive. Give me your guns and the light."

I swung them to my shoulders and we started back. How we got to the foot of the shaft I can't remember. Guns blasting behind me, writhing horror underfoot. At the last it was a mad rush as a shouted something from Tom warned of some new danger. I had to tug only once at the rope; those waiting above must have been tensed to the breaking point. The burdens on my shoulders bumped crazily against the sides of the bore.

I rolled down the concrete mound. From a great distance I heard voices, cheering.

Then—oblivion.

THERE ISN'T much more to tell. Visitors who flocked to Tanasota's famous resort wonder why that field on its outskirts is sunk so far beneath the surrounding terrain, but no one will tell them. A half ton of TNT did that, dropped down the shaft to hell and exploded there.

We found the body of the thing Tom had killed at the bungalow. In my laboratory at Kings I made certain tests, confirming the theory I had formed concerning the nature of the monsters.

The secret of their invisibility lay in their epidermis, corresponding to our skin. This *refracted* all the light between ultra-violet and infra-red, the spectrum by which we humans see; carried it clear around them so that to our eyes they appeared perfectly transparent. I have done the same thing with a set of refracting prisms.

My assistant, Jim Thorne, was puzzled. "How then do they see? If light passes around them, none reaches their brains."

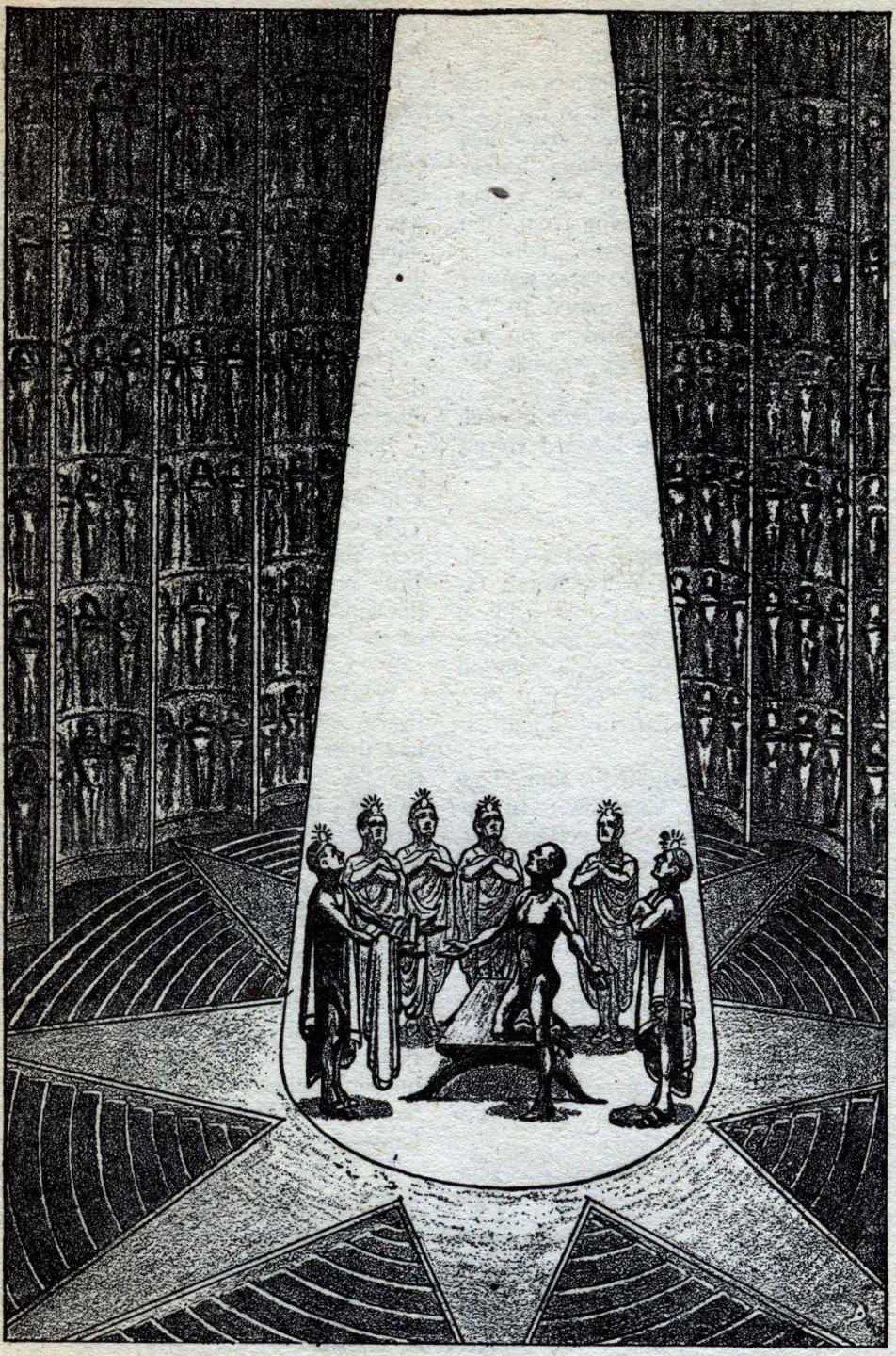
I smiled. "They are, of course, absolutely blind to our light. But remember sunlight never reaches them in their underground home. It is ultra-violet light, and other vibrations beyond our spectrum, emitted by radio-active substances in the rotting rock that pervade that region. Utterly black to us, they see by it as perfectly as we do by the light of the sun."

Thorne got it. "Then that is why they cut out Phelps' eyes, and the others?"

"Right! They were blind, or almost so, in our world, which they sensed was a so much better abode than their own. They wanted human eyes to see things here above. It must have been poor Jim's optics that glared at me through the window, his eyes in the head of one of the monsters."

WHENCE CAME those strange beings of an inner world? Perhaps they had their genesis in the very dawn of time, when old earth was still a molten ball and life itself existent only in resistant spores. Perhaps some of these spores, these life seeds, were enclosed in the vast bubbles that formed, and burst, and formed again, or were caught in some huge folding of more solid rock, and so were imprisoned within earth's crust. Then, through the slow æons, these primal cells may have evolved in their own far different way as their luckier brother seeds that were our far ancestors evolved on the surface. Perhaps——

God grant that never again will they find a way to the light.



The humming sound died. The youngest of the Men of Science stepped forward, and Futrell sat upright, stood. He was alive again!

Warriors of Eternity

A fascinating novelette of space

by Carl Buchanan and Dr. Arch Carr

Illustrated by Elliot Dold

THERE was a low, humming sound in the lead-insulated laboratory, a sound that bespoke lagging power in the massive system of transformers, dynamos, and vacuum-tube oscillators that occupied a larger part of the space.

Dr. Daniel Futrell, nude except for the drape of a crimson robe about his shoulders, sat at a small porcelain table in one corner of the room. His lean fingers scrawled precise writing upon the single sheet of paper before him. Behind him, and standing before a broad control panel fitted with rheostats, glassed instruments of delicate graduations, half a dozen double-pole, double-throw switches, was another man. Dr. Wilks Hurd.

Dr. Hurd was sheathed from head to foot in a suit of flexible lead, protection against the infinitely powerful and unpredictable waves of electrical energy to which Dr. Futrell meant to subject himself.

Futrell's hand moved calmly along the paper:

"——there is the imminent possibility, my dear Margaret, that I shall not see you again. It is not that I do not love you, or that I love science and surgery more. It is only that some force over which I have no control compels me to this experiment. I cannot ask another man to risk his life on my word—upon my years of research. I believe—and hope—that I have made no mistake, have left nothing undone which I should have done.

"Hurd has agreed to handle the controls for me. He even offered to take my place as the subject for the first real and scientific experiment in the realm of intelligence liberation. Intelligence liberation—a regular jawbreaker of a phrase for you, my dear, who have always stood somewhat in awe of things scientific. It means only that I believe I have found the perfect anæsthetic agent. Surgery has been woefully handicapped because of imperfect anæsthetics. Ether is a horrible tool to use upon humanity; even the better agents are infinitely worse than the thing I have discovered.

"Think of it, Margaret—an anæsthetic which will divorce the intelligence from the body! I have experimented with animals. My brave little dogs have recovered from operations without the slightest ill effects—no nausea, no nerve reaction, no damage to their hearts. I feel that the intelligences of those dogs have passed into infinity. I could feel the presence of their small minds—here in the laboratory. I could feel that they—— But you are not interested in this.

"What you are interested in is that I am now going to follow my dogs—for a little while, I hope; yet I realize that it may be impossible for me to return from this journey. I have provided for you amply in case I do not return. Caspar & Reynolds hold insurance policies in your favor in the amount of a quarter of a million dollars."

Futrell lifted his head, his mouth firm. Everything was ready for the great adventure. Life was good—this physical life of the earth which was filled with so many wonderful and beautiful things. Margaret—the woman he wanted, some day, to marry! He thought of her beauty, her massed copperish hair, her splendid body—perfect as that miraculous superwoman of whom every man dreams.

He set his steady hand once more upon the paper:

"I love you. Believe, I beg of you, no matter what fate shall be mine in that infinity of world intelligence into which I shall be catapulted without aid of chart or compass, that I love you.

"DAN."

FUTRELL arose quickly, inserted the folded paper into an addressed envelope, walked to a door and opened it. His Negro servant appeared there. Futrell gave him the letter, said: "Deliver this letter immediately to Miss Margaret Dulaney."

He closed the door, locked it, and walked toward Hurd.

His friend's voice was hoarse, distant: "I ask you, Dan, to relieve me of the task you have foisted upon me."

Futrell shook his head, flung the crimson robe from his shoulders, wheeled and placed himself upon the negative plate of what appeared to be a massive two-plate, dielectric condenser. At the head and foot of the plate were enormous high-frequency coils. Huge glass insulators supported the plate, tablelike, from the floor. The positive plate was suspended from the ceiling by four similar insulators.

Futrell adjusted himself precisely upon the naked plate.

Hurd walked toward him. His voice, muffled beneath the cowllike headgear and mask, said: "Last instructions, Dan!"

"Simple matter, Wilks," Futrell said. "Every switch full on to begin. Then move the rheostat knob forward slowly, until the red indicator coincides with the white stationary indicator at the top of the central meter. When that happens my body should be completely insensible. Allow me to remain in that state for an hour. I—I have some research to do in—in that other world."

A white smile played about Futrell's thin mouth.

Hurd's shoulders rose and fell beneath the flexible robe he wore.

"You have only to be careful that the red arrow does not go beyond the white marker," Futrell went on. "This position indicates the point at which, I have discovered, the wave length of the oscillator has reached its zenith. In other words, it is there that our wave transformation has moved up into that superfrequency beyond the highest in the world of color, and, I think, into that unknown world of thought oscillation. It is there, I believe, that my intelligence will merge with the waves of the field, that my body, lying here on this slab, will be bereft of its last tinge of sensation, that it will, therefore, needing no natural functions of any of its organs, be lifeless, all animation suspended, and remain so until your hand on that rheostat gradually, slowly, brings back my liberated mind.

"Remember! Beyond that white point lies death for me. Once, during my preparatory experiment, before I had determined the extreme point of my wave frequency, I burned one of the dogs. There was a blinding flash as the charge in the positive plate above the dark arcked over to the negative plate. I—I have a profound respect for this body of mine. I should hate like the very devil to have a six-inch hole burned in it."

Hurd turned away, hesitated, then walked back to the plate, extended his hand. Futrell's hand gripped hard. The dynamo's retarded hum was a

throbbing background for the heightened pounding of Futrell's heart, for the scene of what might be his last moment of physical reality.

For just a moment apprehension drove like a sword into Futrell's breast. What lay out there in that infinity to which he had sent his dogs? They could not tell him. No man before had ever probed the invisible world of universal thought—that vast reservoir which might hold all the death-liberated intelligences of every man who had once breathed the air of earth. And now, he, Daniel Futrell, was about to set out upon that journey the course and end of which must be, and perhaps always would be, a wild speculation.

HURD was back at the switchboard now. Futrell laid his arms along his naked body, upon which pale light shifted. He breathed deeply, stared overhead at the gleaming surface of the positive plate. He would not need to watch Hurd's actions at the panel. The weird, ascending note of the dynamo, the shrill whine of the transformer circuit, the penultimate glow of the vacuum tubes as the wave crashed beyond the barrier of sound and entered upon the wide band of waves that control color—these things would tell him of the slow movement of the rheostat.

Liberation of intelligence! The possibilities were infinite. If indeed the minds of mankind were merely tapped lines upon that immense reservoir of intelligence which lay somewhere in infinity, then a man with liberated intelligence, a man whose intellect had been stripped of all carnal needs and handicaps, would find it possible, at will, to read, even enter into, the mind of any person on earth.

Amazing hypothesis! Fearful in its unexplored possibilities. Would he, Futrell, dare to enter into the mind of Margaret Dulaney? Would he not be afraid of what he might find there?

Futrell blinked his eyes as the whining note of the combined electrical devices ascended slowly to a thin, cutting immensity of sound.

The laboratory became a flickering, dancing cauldron of light, green flashes enveloped the body of Futrell, and into his brain there stole a sense of lassitude which was neither unpleasant nor laden—as in the case of anæsthesia by means of ether or hypnotic gases—with apprehension.

He was moving slowly into insensibility, just as his dogs had gone to sleep, without pain and without fear—a brief instant of utter oblivion.

He was not conscious of possession of body now. There was only a vagueness, a small lifting of the spirits. His ego was an infinitely expanding bowl, its rim touching upon infinite recession of time, its chalice filled with unutterable brilliance and sharpness of perception.

He knew there was an acute sense of bombardment against whatever faculty of existence remained with him. There was no longer any sound in the world into which he drifted. The sense of the bowllike character of his ethereal existence passed away, and in its place came a sort of disembodied perception. He was pure mind, intellect stripped of all physical qualities. He was an imperceptible antenna, attuned sensitively to convincing, yet not quite definite, radiations that impinged upon it.

He quickly sensed that he had only to exert the slight effort of his will to adjust the receptiveness of that antenna. He thought: "I have now passed into that timeless state of mentality I have sought for through years of patient endeavor. I have only to *think* where I want to be, *think* what I want to see—and I shall see. I have now no need of the physical attributes of vision, of eyes which depend upon erratic and fallible laws of the physical world. Mentality, in the pure state of which I

have now attained, is not circumscribed by physical laws nor dependent upon them."

He was to remember for a long thereafter, as a note of discord in that strange life which became his, that his mind returned, not to Margaret, but to the laboratory where Wilks Hurd, his body sheathed in the leaded robe, stood at the instrument panel, crouching like some monstrous denizen of an indescribably quixotic land.

The intelligence of Daniel Futrell returned to the place where the greater part of his energies and spirit upon earth had been expended—returned and looked down with spiritual eyes upon the laboratory.

THERE was no light now in that lead-sheathed room except that cast by a yellow globe at the ceiling. There was no sound except that given off by the spinning shaft of the dynamo. The hum of the oscillators had passed—because their wave had transcended the oscillations upon which sound exists.

And the intelligence of Daniel Futrell looked down, more acutely than the eyes of Daniel Futrell had ever gazed through the cylinders of microscopes, upon the nude body upon the plate.

Hurd's lead-gloved hand lay upon the rheostat. The red needle was motionless, its tip coinciding exactly with that of the white marker.

The warmth of a smile passed into the disembodied intelligence of Futrell. Could he communicate with Hurd? He would try.

"Hurd, I am supremely happy. A sense of well-being I never knew in life pervades this astral being I have become. Hurd, look at me. There is no necessity of keeping your hand on the rheostat."

But the man at the board stared intently at the nude body. He made no movement, gave no sign that his brain had heard the thought waves that emanated from the intelligence of his friend.

Futrell knew then that his experiment of trying to reach Hurd had failed. And why should it not have failed? There could not be, Futrell decided, any communication from his mind to Hurd's until Hurd's intelligence was also liberated.

But could Hurd's mind be read by a person whose intelligence had flowed back into that immense reservoir of universal thought?

Without conscious volition Futrell entered into the mind of the man at the panel. And his sense of well-being was destroyed in the twinkling of an eye.

"I have only to move this rheostat an inch. They'd never know it was murder. Margaret and I forever—and he will never know, because his body will be dead, and his mind will also die. She's worth committing murder for—and she loves me! A quarter of a million dollars!"

A vast and overwhelming sense of horror possessed Futrell. Hurd meant to destroy that body upon the plate. He must be stopped. There seemed no way at hand to prevent the outrageous act which was gradually taking shape in Hurd's brain, but there had to be.

Futrell felt there must be some way for him to control the physical acts of a man whose mind was an open book. Apprehension fastened upon the finely sensitized intelligence of his nebulous, astral being. He knew that a thousand broadsides of thought-waves were snarling the delicate machinery of his mind.

What would happen if Hurd should really thrust that rheostat handle beyond the point of the white marker? What would become of the intelligence which had passed from that lifeless body upon the plate—that body which was bereft of mind and of animation?

MENTALITY never died. Suddenly Futrell knew the answer. If

Hurd committed the murder that fumed darkly in his brain, the intelligence of Daniel Futrell would be doomed to an eternity of hopeless questing, to an infinity of terror and of horrible torture. He would become an exile of infinity.

"Hurd! Kill the impulse that has brought you to this mad decision. Rid your brain of this mad thought. You are my friend—you are Margaret's friend."

Margaret's friend—or Margaret's lover?

"Margaret! Where are you?"

And he saw her. She was sitting at a lawn table with two young men. Other young men near by were sending brassie shots off a practice tee. A Negro walked toward her, handed a note to her. Margaret read it, frowned impatiently, got nervously to her feet.

Futrell's intelligence hesitated, aghast at the possibility of an eternity of doubly horrible existence if he should find within Margaret's mind an indictment, a mood, a corroboration of the hideous thought that had lain in Hurd's brain. What if the two were lovers? What if Hurd knew that she would marry him in case something happened to the physical body of Daniel Futrell?

From such a grim possibility Futrell quailed. And he retreated from the half-begun, almost unconscious, penetration of the girl's mind. He flung himself back through time and space to that moment of indecision which was staying Hurd's hand on the rheostat.

"I am possessed now of limitless power, Hurd. If you do what your mind directs I will destroy you, and I will destroy her. If you make it impossible for me ever to return to earth by destroying the receptacle of my intelligence, I will create for you an even more horrible existence. I will make it impossible for you to enjoy the fruits of your crime. I will create for you an existence in which, for all eternity, the beauty of the woman you desire will be dangled, tantalizingly before your thirsting, eager body! I will——"

Dark horror rose about Futrell like a monstrous cloud. The hand of Wilks Hurd had tightened upon the rheostat. The dark purpose of the man's brain drove to the point of decision like a loosed and terrible engine.

Futrell, despair covering him, apprehension of the iciness of a dark world of eternity closed about him. He knew that he had no such power as that of which he had boasted. He had not even the power to convince Hurd of the horror of the act he was about to commit. If there was only some way in which he could warn Hurd of the eternal terror into which this released intelligence would be thrown if that rheostat was moved forward!

But Hurd could not know, or did not dare speculate upon it—and his hand moved.

Light heavy as iron, luminous as the concentration of a hundred blazing suns, thundered across the plates of the huge condenser.

And then there was no sound save the echoes of the blast, no light save the complementary glow of the charge, hanging there in the gloom. The terrific crash had stopped the dynamo, had destroyed the delicate tubes upon which Futrell's hands had worked so long, had thrown Hurd across the room with painful violence. He lay now in an inert heap beside the wall.

And the white body of Daniel Futrell lay still upon the plate, its breast punctured by that tremendous bolt of static electricity. Even in that absolute darkness which settled upon the laboratory, Futrell knew that his body had been seared, the vital organs destroyed. He knew, too, that his intelligence was doomed to eternity and to the unutterable horrors of a disembodied infinity of wandering, soul and mind, bodyless, crying voicelessly through space and time—and through infinity!

II.

WITHIN the indefinite space of time through which the mentality of Daniel Futrell passed thereafter, he steadfastly refused to make an attempt at entering the mind of Margaret Dulaney. His position of unprecedented horror, he felt, would become more acute if he should learn that within her mind there had always been a tendency to unfaithfulness—and with Hurd!

Time, meaning nothing to Futrell except an intangible substance through which he could shuttle at will, neither passed, remained stationary, nor retrogressed. He realized that he would have some difficulty explaining to time-bound Earthlings that time had become now an involuted and motionless stream, without beginning, without end, without power to mark change except in so far as the intelligence he, Daniel Futrell, had become willed it to pause upon a static instant of Earth-time.

Projected into the future by some unconscious exertion of his will, he understood that the body of Daniel Futrell lay now in a grave; he knew that Wilks Hurd and Margaret Dulaney had married and were spending the money the woman had received from the insurance company.

It was then, because of the human quality of regret and profound grief that fastened upon him, that Futrell realized he had not yet become pure intellect. Still clinging to his disembodied intelligence were tattered, sorry shreds of human emotion. He nurtured an intense sense of futility, of wounded pride, of longing for revenge against his erstwhile friend and the unfaithful woman.

There could be, he knew, no way for him to seek intellectual amusement in the gigantic and colorful pageant of the world that lay before him. No scene upon earth could ever make him forget for an instant that he was a prisoner of space, a hostage to infinite time. His was a remarkable power—that of projecting himself into any scene of the universe, any period of time. But of what use was such power if he was to be chained forever to this sense of frustration, this desperate longing to avenge the destruction of his body?

Darkness, emptiness, and a futile and horrific sense of bodilessness lay about him. He tried to *think* himself into a state of hypnosis, of complete annihilation of mind. But the effort proved useless. There was no escape.

No Earth scientist save himself—not even Wilks Hurd—knew the processes of his destroyed intelligence liberator. Even if it could be restored to perfect functioning, how would it be possible for any one to call back to its body the intelligence of Daniel Futrell unless that body, now disintegrating in the earth, could be fashioned into physical reality? How indeed could the destroyed machine—once miraculously potent—reverse the process of liberation?

That was a point he had never quite cleared up in his experiments, though he had believed it necessary only that the released intelligence *will* its return to the body. The door of escape from terror was, for him, forever closed.

TOO OFTEN, quite against his will, he saw Margaret, not as in the flesh, but as that ethereal being his chivalrous, romantic brain had pictured her to be. A splendid woman, he had thought her, fit for the companionship of a god; beautiful, alive, but now lost forever, since, even if the miracle of returning to earth in some other body could be accomplished, her unfaithfulness was an impenetrable barrier.

"Had I a body, two hands, just for a minute," he cried in anguish, "I would spend that minute in killing her—and him!"

His intelligence, his ethereal being, paused. For just a moment—and in his Earthbound intellect such divisions

of time still retained a quality of reality—he knew that he had become receptive to the bombardment of a vague but intensely compelling message.

Some one was trying to communicate with him. Some one, some intellect, was striving to contact him. Somewhere, within the limitless borders of no-time and no-space, there was a being who recognized his position, knew how to reach him.

Some Earthly being? Some scientist who had been working on a similar diversion of the powers of thought waves?

No, he decided. This urgent message was coming from some unknown, some unrecognized sphere of life.

There was something in the message, only vaguely revealed, that hinted of immaculately formed womanhood, of complete and unhampered spiritual union. It was a strange and compelling thought, and he strove with all the power of his will to gather in the message.

"Earthling? Are you not free at last? Are you not glad to be free of Earth where the wretchedness of avarice exists, where greed transcends all nobility, and where women are unfaithful?"

THE MESSAGE had come as if through the medium of a mental voice of a strange and disturbing beauty.

Futrell sent back the answer: "I have no freedom. I writhe beneath the chains of eternity. But who are you?"

"I am Mola, maid of Phenos."

Hunger for companionship propelled the almost-frantic request from Futrell's intelligence: "Describe yourself to me so that I may see you!"

"In terms of Earth," the ethereal voice proclaimed, "I am rather taller than your Earthwomen. Almost as tall as you, and my hair is like Margaret's. I can see you perfectly because we watched you for years and hoped that your experiment would be successful."

Slowly, nebulously, the figure of a beautiful woman materialized dimly before Futrell. Her face was Margaret's because, Futrell realized, she had so described herself. The body was nude except for a single width of some dark material falling from shoulders to ankles.

"Why did you hope that I would be successful?"

Futrell was conscious now of a vaguely perceived body of his own; knew that his intellect had been given the use of the woman's eyes.

"Because millions of light-years ago we of Phenos discovered the art of thought liberation. We wished to communicate with you, because, other than Phenos, Earth is inhabited by the most intelligent of beings."

"And where is Phenos?"

"It is a rather small planet, billions of light-years from Earth."

And as Mola, maid of Phenos, communicated with Futrell, he saw the planet. There was upon it the reddish glow of celestial twilight. Within the starred heavens about it glowed two greenish moons, iridescent and globulous.

"We have solved all the problems which still harass the peoples of Earth," Mola went on. "We have no criminal class. Our science has attained that point where criminals are recognized almost always at birth. It was not always so, however. Millions of Earth-years ago we did not recognize criminals until they had attained full stature."

"Your people are much like Earth-people?"

"Yes; our men and women are like Earthpeople. Our scientists have experimented with many forms of life. We liked the forms of Earthpeople, because they possess the most perfect bodies of any form of humanity. We set about copying them, and I think

we have somewhat improved upon the copy. Phenos now is inhabited by superEarthlings. You see me as an Earthwoman. In reality I am much like them."

"I should like very much to visit Phenos."

Futrell, as if effected by some swiftly executed incantation, found himself, without shock or surprise, hovering above a wide marble plaza. To right and left were immense trees with the spirelike qualities of poplars, but of such a deep green as to give the impression of eternal spring.

He moved along the plaza, noted that a very evident solar body somewhere above him cast no shadow upon the brilliantly checkered walks and gardens below him. He was wafted through an arch laid in a mosaic of varicolored and intricately carved stones.

"This is the entrance to Garlith, capital of the Phenosian Unity," came the thought-wave of his guide. "You behold it with my eyes. If this is adventure for you, think what it means to us who have waited millions of light-years for some man of Earth to stumble upon the secret of thought liberation."

Ebony columns, delicately fluted, enormous monoliths of a material like silver, massive and perfectly carved statues of grotesque animals, gave the great room a quality of splendor and magnificence. From some indefinite source came the chill light of day. It seemed to pour up, sourceless and remote, from the outside, and to penetrate the thick walls, to lie without hint of shadow upon every corner of the vaulted room.

"You may pass now," came the mental direction of Mola, "into the audience chamber of the Men of Science, the governing board of the kingdom."

Massive doors of ebony swung back from Futrell's approach. He found himself inside a great chamber, in the center of which was a circular table. About this table seven men were seated. Two of them were old and bearded, but five were young, bronzed, eager-eyed. The foreheads of these men were somewhat higher than those of Earthmen, and their eyes betrayed perfect health and keen intelligence.

THE SEVEN rose as one as Futrell was conscious of drawing near them.

"To the planet Phenos, to the city of Garlith, to the chamber of the Men of Science," said the man in the center of the group, "you have passed as one thrice welcome. The moment for which we have waited through many incarnations has at last arrived. We would not have you consider your intelligence a prisoner here. You may leave at any time you wish, although we do not believe that you will do so. We hope that you will allow us to give you a body of your own choosing, and to instruct you considerably in the science of thought liberation as we have practiced it for millions of Earth-years. We watched with much interest your experiments upon Earth."

Futrell thought—and the thought was communicated directly to the Men of Science: "I shall consider it an honor to be so instructed. I place myself entirely in your hands."

His mental acquiescence to their wishes involved him in a series of nebular movements of which he was only partially conscious. He found himself hovering within a massive room where blue twilight lay. Against the walls upon black trestles, row upon row, were heavy glass caskets, and in each of them was the nude body of a man.

The bodies were perfectly formed and, apparently, without life. Lax muscles lay beneath alabaster skins; massive torsos were like magnificent Rodinesque statues. Most of the men were dark; all were perfect physical specimens.

Futrell's unasked question was answered at once.

"These are the bodies of men who reached their full stature before we were able to discover in their intellects the germs of criminality. Upon Earth they would have been broken with hard labor in penal institutions, or destroyed by electrocution. But in Phenos we neither destroy the bodies of our criminals, nor risk the chance of their committing further crimes."

"What has happened to them?"

"Their intelligences have been liberated, their bodies preserved in a state of suspended animation. This chamber is one of hundreds of animatoriums upon Phenos. When the older men of Phenos desire new bodies, we have only to transfer their intelligences into one of these bodies. There is no death on the planet."

"And what has become of the intelligences of these bodies?"

"They have been banished to infinity."

Futrell's intelligence recoiled before this amazing disclosure. It was the perfect plan for dealing with criminality. Somewhere in infinity, in some trackless and vast Siberia, the intellects of millions of former inhabitants of Phenos lived—and feared.

"How is it possible for you to enforce this edict? My own body on Earth was destroyed. Had it not been, I feel sure that I could have willed my return to it."

"You have struck upon the problem upon which our greatest men of science have been working for eons. Each of these banished intelligences, of course, has a slightly different wave length. We find it necessary to maintain, at great expense and use of electrical energy, a vast system of intelligence barriers attuned in multiple waves, one for each of the released intellects, in order to prevent these banished minds from returning to the bodies.

"Only once, in all the millions of years we have worked with these powerful engines, have we failed. One of the guardians at the animatorium at Mardi came into the chamber one morning to find that one of the bodies, horribly bruised and lacerated in its attempt to escape from the casket, was dead."

Perplexity possessed Futrell's intelligence.

The thought of his guide continued: "The returned intelligence, having evaded or slipped through the waves of our intelligence barrier, converted the suspended body into a living man. The man had struggled vainly to release himself from the glass casket. In the end he died of asphyxiation. We do not want a recurrence of that horrible incident."

"And you think it is possible for me to enter one of these bodies?"

"The one of your choosing."

A body! The chance, perhaps, to return to Earth, to use the body of a Phenosian in his avowed intention of revenging himself upon Margaret and Hurd who had condemned him to eternal exile in the astral world. Yes—a thousand times, yes! He would submit himself at once to the opportunity. Surely these Phenosians—these men of superscience—could devise some method of projecting his newly acquired material being back to Earth.

"We must warn you that the experiment of giving you a new body may not be successful. We have never had the opportunity of trying to link the intelligence of an Earthman to the body of Phenosian."

"In what manner might the experiment fail?"

"Your intelligence might, if it refuses to accept the new cloak of physical reality, become distorted, deranged beyond repair. In short, you might find your intelligence doomed to an eternity of madness."

THE SHABBY remnants of Futrell's Earth-spirit contemplated the risk he must assume. What horrible dreams, timeless and diabolic, might not haunt his crippled intelligence if the experiment should fail! There clung to him, like the dirty rags of a diseased beggar, the memory of that horrible moment when he had come to the realization of an eternity of hopeless wandering. How much more horrible would it be if his intelligence should be forced to fly eternally before the tortuous and insane urgencies of a distorted ego!

Margaret and Hurd! Fury took possession of him as he thought of their enjoying the fruits of their despicable crime.

"I am ready for the experiment. Give me a body."

"We applaud your decision, but regret the motive that prompted it. You should experience no difficulty in finding here a body much like your own upon Earth. Will this one do?"

Through the eyes of his guide Futrell looked down upon a body in a casket. And for a stabbing moment he thought he must be looking down once more upon his body as it had lain upon the negative plate of the condenser, in that moment just before Hurd's hand had destroyed it.

"How shall I be able to communicate with you after I receive this body? I know nothing of your language."

"You need no knowledge of our language because our language is used only for recording thoughts upon electrical sound disks. We speak with each other telepathically. You will be able to speak in the same manner without the slightest difficulty."

"Then—I choose this body!"

III.

DARKNESS enveloped Futrell. He knew that the intelligence and the eyes of his guide had passed beyond his grasp. Once more that terrible feeling of helplessness which he had first known upon understanding the doom which had been laid upon him stole over his senses.

He stirred, opened his eyes. He was lying on a circular dais of some dark, gleaming metal. About him was the muted sound of perfect synchronization. Beside the dais, clad in some fine material he had never seen before, were the Seven Men of Science. Upon their heads were coronets, evidently fashioned from single gems of blazing beauty.

The humming sound died in a note of final protest. The youngest of the Men of Science stepped forward, adjusted a hand beneath Futrell's head, slowly lifted it. Futrell spread his palms upon the gleaming surface of the circular plate, exerted the mounting energy of his arms. He sat upright, swung nude legs over the edge of the dais.

Wonder thronged into his brain. He was alive again. He possessed a body.

He stood erect, flexing his arms. His spirit became intoxicated with the rugged pound of blood in his veins. He was, once more, a man.

Two of the Men of Science stepped majestically forward, bearing in their hands sandals and a robe of scarlet. The sandals were adjusted to Futrell's feet, the robe fastened with a jewel about his shoulders, Grecian fashion. A third man stepped forward and placed upon Futrell's head a coronet which flamed with the crimson beauty of a huge ruby.

"You are now the eighth member of our governing board. Come with us!"

Futrell spoke with them easily by uttering the words of his own language. Their voices came also to him, not as thoughts as heretofore, but as sounds, and in the syllables of his native tongue.

They led him through an arched window and out upon a platform. Before his eyes was a vast square, thronged with people. The eldest of the Men of

Science talked to them, told them of the successful experiment. When he finished, a vast and rolling shout came up from the square.

Futrell lifted his hand and spoke to the throng—of Earth and of his awkward experiments. His small speech was greeted with applause and with friendliness. He was led back into the room of the experiment.

They asked him: "Is there anything now that you especially wish?"

Futrell's hands gathered the fold of the robe in a quick impulsive gesture of determination. His head lifted in defiance and in passion. "I wish, O Men of Science, to be returned to Earth!"

Silence greeted his ringing statement. The faces of the Men of Science darkened.

The eldest of them, Gurgan by name, said: "We anticipated that demand, but we must inform you that your wish is impossible of fulfillment."

DARK FURY roared like flame through Futrell's brain. He stepped forward, his fists clenched, his throat charged with passion. "Nothing is impossible with you!" he cried. "Why did you suppose I wanted a body? Why did you suppose I submitted myself to the experiment, thus chancing the horror of madness in eternity?"

"We knew why you wanted a body; but we hope to dissuade you from your determination to murder."

"They murdered!" Futrell cried. "They sentenced my soul to an eternity of hopelessness. You *can* send me back to Earth—*and you shall!*"

"Two feats," said Gurgan, patiently, as if explaining a simple thing to a child, "we have not accomplished. We have not been able to send a physical body to Earth, a billion light-years from us; and we have not been able to destroy the intelligence of the Warriors of Eternity."

The hint of deadly menace in the last words of Gurgan's speech broke through Futrell's anger, his frustration. Warriors of Eternity? What could they be?

The Men of Science turned. A door was opening. Futrell moved about in his tracks.

The ebony door moved back noiselessly upon itself, and a curtain of such rich texture as to seem animate parted in languid, liquid folds.

A woman stepped into view.

Her limbs were nude, save for a narrow strip of cloth, like fine velvet, which depended from a jeweled clasp at her shoulder and fell softly down her body. Her head was crowned with a mass of copperish hair that clung like a helmet to her temples and fell away like delicate wings beneath the rounded ears. Her forehead was high and white; her eyes were dark. She moved forward with a grace that was at once regal and ethereal, her jeweled sandals touching at each step the single width of cloth that was her entire costume.

Her eyes found Futrell, touched his gaze, held steadily upon it.

"We need you on Phenos, O Earthman!" she cried. "We need you in our fight against the Warriors of Eternity!"

Amazement flooded Futrell's brain. The voice was that of Mola, and she was not at all like Margaret. He stared, his tongue rooted in silence, shocked into boorish stupidity by the goddess-like beauty of this woman and by the realization that he had found Mola again.

"You—you are," he stammered, "the most—the most beautiful thing my eyes have ever beheld."

"There is not time," cried Mola, her brow darkening, her eyes ravaged by some terrible thought, "to speak of loveliness, nor of what your Earthbound eyes have seen."

The Men of Science stood now with bowed heads.

Futrell sensed the presence of some

imminent disaster. "These Warriors of Eternity? Who are they?" he asked.

"They are the intelligences of our banished criminals. Through millions of years they have become very clever. They have possessed themselves of the moon, Esta, have subjugated the primitive inhabitants of the Phenosian satellite, have bent them to their will. And now they have threatened the existence of Phenos—of our planetary system."

MOLA, Gurgan, the eldest scientist, and others among them, explained to Futrell the situation in regard to the subjugation of the creatures of Esta by the liberated intelligences of the Phenosian criminals.

The Warriors had created a dead field in a certain quadrant of the constellation of Phenos. In this dark quadrant the barrier waves of the Phenosian scientists were handicapped. No Phenosian dared to project his intelligence into that dangerous quarter of the heavens lest he be totally destroyed. Many had ventured into the field, had contrived to remain alive for a few minutes of Phenos-time, but had at last been destroyed.

The Warriors, using the half men of Esta, had built space ships, were perfecting thought-transference machines, had even gone far along the road to perfection of an engine on Esta which would, by making use of the principle of synchronization of material vibrations, eventually destroy the glass caskets in which their abandoned bodies were held prisoners. When they obtained the full use of this machine they would have only to project their intellects back to Phenos, reënter their bodies and usurp the planet from which they had been ejected.

The scientists of Phenos had not been remiss in meeting these efforts of the Warriors to regain their lost estate. They had carefully retained the bruised and maimed body of the single Warrior who had returned to his glass prison—this as a warning to other Warriors of their fate should they attempt to return.

"The most brilliant of our scientists have often become criminals," Gurgan said. "These men, banished from Phenos, are the brains behind the gigantic preparations of the Warriors. The great conflict is not far distant. We are matching their preparations item by item. Our own space ships are ready for the interstellar war."

"We are prepared," echoed one of the younger scientists, "for the day!"

Futrell, chastened by the exposition of the precarious situation, declared solemnly: "I realize that I am only a neophyte, but I wish to learn so that I may take my place beside the scientists of Phenos against the Warriors of Eternity."

THUS it was that Daniel Futrell went into the laboratories of Phenos and was initiated into the vast realm of Phenosian science. He learned how to operate the intelligence barrier, came to know the secret of the massed banks of transformers in the great underground chambers beneath Garlith, Mardi, and other great cities of the planet. He learned to operate the delicate mechanisms which enabled the Phenosians to read the thoughts of the Warriors.

And the day approached. Giant flotillas of space ships of various types were assembled throughout the land; vast power plants for emergency use were erected; additional thought-detectors, shielded by an impenetrable metal, were built; the guard of the animatoriums was doubled, trebled; every precaution was taken to prevent the Warriors from entering their bodies.

And a day came upon which a silent watcher of the great convex mirror in the laboratory at Mardi discovered that the Warriors had perfected their machine for the destruction of the caskets.

The word flashed instantaneously, by thought-waves, into every workshop, factory, and laboratory in the land.

Engineers hurried their work on the space ships still in the cradles. Technicians adjusted the delicate instruments which would serve as listening posts during the coming struggle. Arrangements were made for the accurate recording upon disks and reels of every movement in that great battle which would rage for thousands of years of Earth-time, and range over millions of miles of interstellar space.

Early one purple evening of the eighty-hour day of Hurthe a glass casket in the Mardi animatorium suddenly dissolved into mist.

The body which had been imprisoned there sprang to life at the urgent command of the Warrior intelligence which had entered it. Guards cut him down with glittering swords, and barrier operators thrust greater power into their apparatus, delayed the return of other Warriors.

A council was called at Garlith. Futrell sat with the Men of Science.

"We have averted tragedy for the moment," Gurgan proclaimed. "But before the asteroids of Esta shall cross the next lunar meridian we must send some one into the dark quadrant to observe operations there. Every precaution will be taken to see that this lone intelligence receives protection, but we cannot guarantee it. I ask for volunteers."

There was a long period of silence, and Futrell knew why. The others were aware that he had decided long ago that he would volunteer. Futrell rose to his feet. He had not seen Mola for a long time. He had heard that she was busy directing the operation of the special intelligence liberator which would propel some daring *voyageur* into the dangerous quadrant controlled by the Warriors. The thought that she might be thinking of volunteering for the mission had been a factor in his own decision.

"I have the honor to offer my services in this venture," he declared. "But upon one condition."

"That condition?" Gurgan asked.

"That some method be devised as speedily as possible for the complete annihilation of those millions of released intelligences."

Gurgan nodded gravely. "We are working on that, now," he replied. "But first we must destroy Esta so that the Warriors will have no primitive race near by upon which to foist their intelligences and again threaten Phenos."

"I am not thinking, as you know, of Phenos," Futrell said grimly. "I think only of the horrible fate to which the Warriors have been assigned. You, who have never known the utter terror that possesses the intelligence of a man doomed to an eternity of wandering, cannot understand why my sympathies are aroused. It would be an act of mercy to destroy the Warriors."

"Two hundred of our scientists," Gurgan returned, "are at work upon that project. They seek, by means of a new energy wave, to destroy the thought-waves of the Warriors. They will test the new machine as soon as it is completed."

"Then I offer my services," Futrell said, "without condition, as observer in the quadrant of Esta."

"The quadrant has belonged to the Warriors for a million years," Gurgan warned Futrell. "We are not at all sure that we can protect you."

Futrell smiled. "To say that I am not afraid would be untrue," he said. "I *am* afraid, but I have brought something with me from Earth, something from my Earth life, which I think will serve as a shield against the Warriors."

IV.

IN THE THIRD phase of the evening of the day of Krithe the Warriors

struck. Futrell was ready for his adventure. His body, clothed in a yellow robe, lay upon the daislike plate in the laboratory at Garlith.

At the space-ship field outside the city five hundred projectilelike machines were ready for the thought-wave signal which would send them hurtling toward Esta at a speed which, except for the powerful insulation of their sheathed sides, would destroy them in the twinkling of an eye—not from friction heat, but from the astounding changes which take place to matter subjected to tremendous speed.

At a hundred laboratories on Phenos, keen-eyed scientists sat at desks, probing with their brains into the limitless space of the battlefield upon which the Warriors would meet the men of Phenos. But these scientists could not know what might take place within the quadrant which was the special property of the Estans. It was there that the battle must reach its greatest intensity, and it was there that Daniel Futrell's intelligence would be released, the target of a hundred thousand energy-waves from the powerful stations the Warriors had erected upon Esta.

Futrell heard the murmurous whine of dynamos. The room was deluged with brilliant colors, pouring up the scale, diminishing into a yellow phosphorescence as the waves changed from color to the infinitely small waves which control the liberation of thought.

Would the device he had brought with him from Earth be sufficient to shield him from the bombardment of the Warriors' thought-destruction machines? Would he be able to report the arrangement of the space ships the Warriors would assemble in the dark quadrant, so that Gurgan, in his central control room high in a metal tower at Garlith, would be able to deploy his forces in the most efficient manner?

Everything depended upon his success, Futrell decided. He could not, must not, fail.

He remembered that his own work on an engine which might propel his Phenosian body to Earth where he could carry out his plan of revenge upon Hurd was almost complete. He must return to Phenos to finish the work. He must return to Earth.

He wondered idly, just as his consciousness, in slow transmutation, became a temporary part of the wave which would project him into space, why Mola was not at the controls. But as his intelligence slipped, shuttling, into interplanetary space alongside the thin wall which separated the dangerous area of the Warrior's dead quadrant from space which was safe, he forgot Mola, forgot Earth itself.

FROM his position now, his mind encompassed all the massed and triggered armament of the Phenosians, all the wide panorama of the battlefield, except that which lay within the dark quadrant. Doubt assailed him. Why should he risk maiming his intelligence forever?

But doubt and fear passed as the spirit of the great adventure rose from the gigantic plan about him and became like a hard flame in his mind. He, and he alone, would be privileged to witness the entire battle front, the complete picture of the conflict. He, and he alone, could guide the Phenosian space ships into the dead quadrant with the accuracy necessary for their effectiveness against the hidden flotillas of the Warriors and for their quick return before their operators should come under the deadly bombardment of the intelligence destroyers on Esta.

Futrell had known that it would be impossible to show the operators of the space ships how to use the device he had brought with him from Earth. Only an Earthman, he believed, could use it.

A message, soundless but urgent, charged through Futrell's intelligence: The signal from Gurgan's metal tower at Garlith—the signal that announced the beginning of the conflict.

Futrell knew that there was a concerted catapulting of space ships from Esta. He knew that Phenosian ships were careening madly through the ether; and he knew also that inside the dark quadrant thousands of Estan space ships and thought-controlled projectiles were waiting.

Futrell projected himself beyond the diaphanous wall, slipped into the dark quadrant. At first he felt no change in the ethereal environment of a normal released intelligence. He was able now to see the positions of the waiting ships and projectiles. He knew that the test of the device upon which success hinged would come when Warrior scientists detected the presence of an alien intelligence inside the quadrant.

Gurgan's thoughts came across time and space to Futrell: "Calling Futrell. Make ready."

Futrell quickly placed himself in a receptive condition.

From the tower at Garlith: "What do you find?"

From Futrell, anxious, now that he was beginning to feel the effects of the strange waves from the Estan intelligence destroyers: "A giant flotilla of flat-shaped, unmanned projectiles, controlled by a laboratory at 36-47-17, north, 89-14-24, west, on Esta."

Futrell knew that Gurgan had touched a control, knew that half a thousand Phenosian ships, manned by operators who knew they must die, had obeyed that signal and were falling at twice the speed of the fastest comet toward that control laboratory on Esta.

The giant laboratory was destroyed. Five hundred Phenosian operators were smashed into atoms, along with their ships. And the flotilla of projectiles inside the quadrant were now hurtling, unguided, through millions of miles of interstellar space.

The first skirmish of the battle was a victory for Phenos.

Futrell realized that for him the critical moment had arrived. A vague feeling settled upon him. A cosmic fog seemed to creep in upon him, numbing his faculties of thought.

He willed himself to think: "I am a fool! I should have remained upon Phenos to continue my work on the machine which may some day send me to Earth in the shape of Daniel Futrell so that I may wreak vengeance upon those two who destroyed me. My hate for them is more colossal than this conflict. I would bruise her face, tear at her throat with my fingers, at his cowardly heart with my hands. I want to see them suffer, languish in terror—die."

SLOWLY, clearness of perception returned to him. He cast about for information to send to Gurgan on Phenos.

"Squadron of Jal-type space ships destroyed in the third zone of the quadrant by Estan globes. Send reënforcements there before the Estans can reorganize."

He knew that the report was received, saw Jal-type ships, sleek as mammoth seals, slide into the quadrant with the speed of thought itself, strike a powerful blow, and return safely to the shore of the dark quadrant before disaster from the intelligence destroyers could reach them.

Down upon Phenos—and action there was visible to Futrell when he willed that it should be—thousands of glass caskets in the Mardi animatorium melted away, and thousands of Warriors, assuming their old bodies, poured, hordelike, down the corridor, only to be smashed in the cross fire of Phenosian ray-gunners operating from the gallery.

Once again, over the sense of Futrell's intelligence, came that desperate

feeling of slow disintegration. The Warriors had learned that upon Futrell's reports were based the most telling blows of their enemies. And they were redoubling their efforts to cripple the mind that hovered within the dark quadrant.

"Hate her?" Futrell thought, disregarding the interstellar clash that went on in gigantic skirmishes. "I hate her so much that my soul should be consumed in that hatred as a drop of water might be consumed in the white-hot cauldron of molten steel. It must be, that in whatever delight she now exists—delight stolen from the man she declared she loved—she feels this hatred burning across space and time. And Hurd—he who consorts with her who should have been mine! What horrible torture should I devise for him which will be like that into which he cast his friend?"

Once more Futrell was conscious of the slow retreat, the slow diminishing, of the intensity of the thought-destroying waves hurled against him by the Estans. He was conscious, too, of some intimately lovely intelligence trying to communicate with him.

He forgot Esta, the Warriors, the strange planet in whose cause he fought.

"Who speaks to me?"

"It is I, Mola!"

"You are not here in the quadrant!"

"I am here in the quadrant beside you. It is necessary that I remain here, so that there will be a special intelligence, other than your own, to direct the operations of the special liberator which sent you here."

"You lie, Mola! And you recognize the danger of being here. Why have you come?"

Silence. Then: "Do you hate her so much?"

"Mola! You should not have come here! Can you not feel that you are being bombarded with the powerful thought-destroying waves from Esta? Do you not know that you cannot hope to escape them? I command you to leave the quadrant, at once."

"I wish there was some person whom I hated well. It must be a splendid way of spending time. You seem to derive so much pleasure from hating this Earthwoman called Margaret."

"You don't understand, Mola. I must hate her—and you must hate her. Can you not understand what they have done to me? Can you not understand what torment was mine when I knew that I could not return to Earth?"

"Is Earth so much more beautiful than Phenos?"

"No. You misconstrue my words when——"

"But not your thoughts. I detect that you are concealing something from me."

"Mola, if you will not leave the quadrant, you must think hard of hate. You must fill your brain with burning hatred—of the kind that lacerates the brain, that slashes it as with glass-sharp knives, that burns it as with searing flame. Have you never known hatred—jealousy?"

"I have known jealousy—recently."

"Then think upon that jealousy. Think upon it every moment your intelligence is not needed by the operators on Phenos. Do you understand me?"

"No; I do not understand you; but I will do as you say. I will let my thoughts walk with yours; and they will be hateful, hot as with fire, and sharp as little glass knives."

TORN between the two points of his dilemma, Futrell shuttled his intelligence back and forth between observation of the waning battle between the Warriors and the Phenosians and his desperate struggle to save himself and Mola.

Time passed, and the shafts of the Estans were broken at last. The energy

that surged into the dark quadrant from the thought-destroyers of the Estans was not strong enough to break down the intelligence of the man from Earth, because he had found an armor much stronger than any of the mechanical and scientific genius of the Warriors had contrived. So long had they and the Phenosians worked with the abstract science of thought that they had forgotten that the human side of intelligence might prevail against all the mechanized forces they could devise.

The space ships of the Estans were destroyed. The moon Esta blazed, upon the purple evening of the fourth Harthe, high with destructive flame. Its center, racked with darts of powerful rays from a supership manned by a thousand Phenosians, exploded, and Esta was no more.

A call went forth from Phenos. It was clarion and tinged with the fine note of victory: "All liberated intelligences of Phenosians should return at once. As soon as we are assured that all have returned safely we intend to release the waves which will destroy the Warriors and all liberated intelligences."

"Mola!"

From Futrell's intelligence the word went out, bright as her beauty, challenging as her own dark eyes. Where was she? He had not heard from her for many hours, perhaps many years—for he had little sense of the passage of time during the gigantic conflict. Had she slipped away from the guidance of his own intelligence and into the horror of oblivion?

He communicated with Gurgan. No; Mola had not returned. Her body, clad in an orchid robe, her gentle breast rising and falling beneath the dancing curtain of the energy waves of the station at Garlith, lay upon the dais plate in the room adjoining that in which Futrell's own body lay. Operators at the controls could no longer communicate with her.

Anxiety, like a driven sword, entered the intelligence of Futrell.

"Get in touch with Mola if possible," Gurgan directed. "Haste is urgent lest we fail in destroying the Warriors. Unless she has returned within a few minutes we must go on without her."

"I demand that you wait for her return!" Futrell cried. "I retract my demand for the destruction of the Warriors."

He anxiously awaited the reply of Gurgan, suddenly aware that nothing in all the universe was of any importance except the safety of Mola.

Grimly final was the terse message that Gurgan sent: "We cannot thrust aside the chance of safety for Phenos for the life of one maiden."

A SENSE of unutterable loss replaced all the emotional content of Futrell's intelligence. Mola would be destroyed. Perhaps she had already been destroyed, or her intellect condemned to an eternity of maniacal wandering through space and time.

He must find her. His frantic call went out through all space and all time, resounding desperately against the receding shores of infinity. And no answer from the maid Mola reached him. There was only soundless vacuity on every hand, only a cavernous void into which the maid had disappeared.

Suddenly he willed himself back upon Phenos.

He struggled erect upon the dais, charged to his feet while distracted operators of the machine which had catapulted him into space thronged after him. He pushed his way through a door, his throat tight with fear, his breast aching with apprehension.

He brushed aside half a dozen attendants about the dais plate upon which the body of Mola lay as one asleep, her eyes shaded by her lids and their dark

lashes. Her alabaster breast moved tremulously.

Futrell grasped her hand, and his eyes drank deep of her beauty. Madly he cried: "There is a chance that the wave length of this woman and mine are the same. She found me when I was a wanderer, and I must find her now. I shall lie here beside her until the wave that propelled her into time shall become operative upon my own intelligence. In that way I may find myself beside her."

They said to him: "There was never record of two intelligences with identical waves. You know what it will mean to you if it shall happen that this machine is not casting your wave."

Futrell's mouth was a white, taut line. He nodded. "I know," he said. "I know that I shall be destroyed, or that I shall become quite mad—out there. But I do not care. Nothing can be worse than not knowing what has happened to her."

"We refuse to allow——"

But they retreated from the towering rage of his body, his eyes.

They obeyed him. What seemed like ages of time passed before Futrell felt the action of the wave against his mind. What lay ahead of him now? The next few seconds would mean everything to him—and to the maid of Phenos. He knew that his intelligence was vaulting forward through strange sensations, and then——

"IS THERE so much hatred in your heart that it can find no room for Mola?"

"Mola!"

He had found her. She was safe. The antidote he had given her had proved effective against the now sourceless and impotent destroyer wave of the Warriors.

"Mola, your spirit came to me through space and time and dragged me back again to life. Now return to Phenos with me."

Exultation like a white cool flame burned in his soul.

Silence; then he said to her: "Mola, I do not hate that Earthman, nor the woman. Love of you has cleaned my heart of hatred, of jealousy, of wounded pride."

"Why, then," she asked, "did you cry out your hatred? Why did you want me to think upon hatred and jealousy? You almost convinced me that I knew what hate was, when all I knew was that I loved you—that I had to be with you, out here."

"Mola, I was fighting the Estan destroyer waves in the only way possible. It was necessary that I fill my mind and yours with something hard and brutal, so that the waves could not enter them. Phenosians have forgotten that intellect itself is a powerful human quality, is dependent upon no concocted system of waves. I felt that if I could fill your mind with hatred, the dark quadrant waves would have no effect upon you. And I succeeded. You are safe."

Once more, from Gurgan's tower, came the warning that soon powerful waves of the new Phenosian intelligence destroyer would penetrate all space and time.

And the intelligences of Mola and the Earthman returned to Phenos, and their bodies rose from the dais. They walked, in their perfect bodies, into a corridor, stood together there for a moment in perfect and wordless communion. Futrell swept her into his arms.

"And you do not want to return to Earth—to that Earthwoman?" she asked.

Futrell smiled, walked to a door, called a name. A young scientist, his face flushed with victory, approached Futrell.

"Sanda, do you know where my laboratory is?"

"I do," replied Sanda.

"Go there," Futrell ordered. "Along the east wall is a machine upon which I have been working in an effort to send my body across the billions of light-years that lie between Phenos and Earth. Do you understand?"

"Yes; I understand."

"Go to that machine," Futrell commanded.

"Yes."

"Do not try to probe its secret."

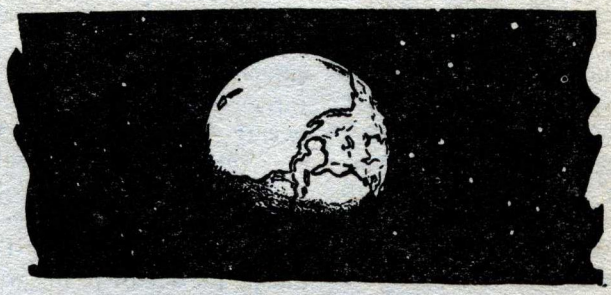
"I obey," said Sanda. "But what further shall I do? What shall I do with the machine?"

Futrell's hand closed upon Mola's. Upon his face was a light he knew would never be extinguished.

"What shall I do with the machine?" Sanda asked again.

"Do with the machine?" Futrell echoed—then triumphantly: "Destroy it!"

Mola, when Sanda had gone to fulfill his mission, turned to Futrell, laid her hands upon his shoulders. Her eyes were warm with tears. She said: "I'm glad! I'm glad you did that, not knowing that upon Earth ten thousand years of Earth-time have passed since the Earthwoman was unfaithful, since your friend destroyed your body."



TOWARD THE ROCKET

To TEST the effect of high speeds (such as may be expected of rockets) on life, engineers of the Rockefeller research organization have already "spun a mouse in a closed carriage" at a speed of fifteen miles a second. The mouse and its sealed cage were simply tied to a fly-wheel. The mouse showed no ill effects. A guinea-pig in the same carriage at the same speed was found dead from a cerebral hemorrhage.

Among the advantages of a rocket in space is that it provides artificial heat to the carriage it propels, a necessary factor when the temperature of great altitudes or outer space is considered.

It is not an exaggeration that all details for a rocket trip to the moon have been computed as exactly as possible by engineers and mathematicians. The only drawback is an adequate fuel. Time and money, in many instances, are lacking to carry on adequate experiments. Nevertheless it is barely possible that within fifty years Earth-dwellers may be traveling to Mars and Venus.

Stratosphere Towers

Illustrated by Elliot Dold

by Nat Schachner

THE TWO MEN stood in silence on the observation rim of Solar Tower No. 1 and surveyed the barren reaches of the Roba el Khali, twenty miles below. Even through the filtrine panels, the sun-drenched sands of the great empty Desert of Arabia slashed the vision like a fiery sword. Directly overhead, a molten sun burned unimpeded through the thin stratosphere.

There seemed no life anywhere on the smooth convex bowl of the earth. Not even a cloud beneath to break the monotony of hundreds of square miles of emptiness. Only the great stratosphere tower, lonely and aloof, spurning the desert from its five-mile base. It thrust its impermite walls upward like an elongated hourglass, tapering smoothly to its narrowest diameter at an altitude of fifteen miles; then it flared out again like a funnel until it made a yawning cavity three miles across at the top.

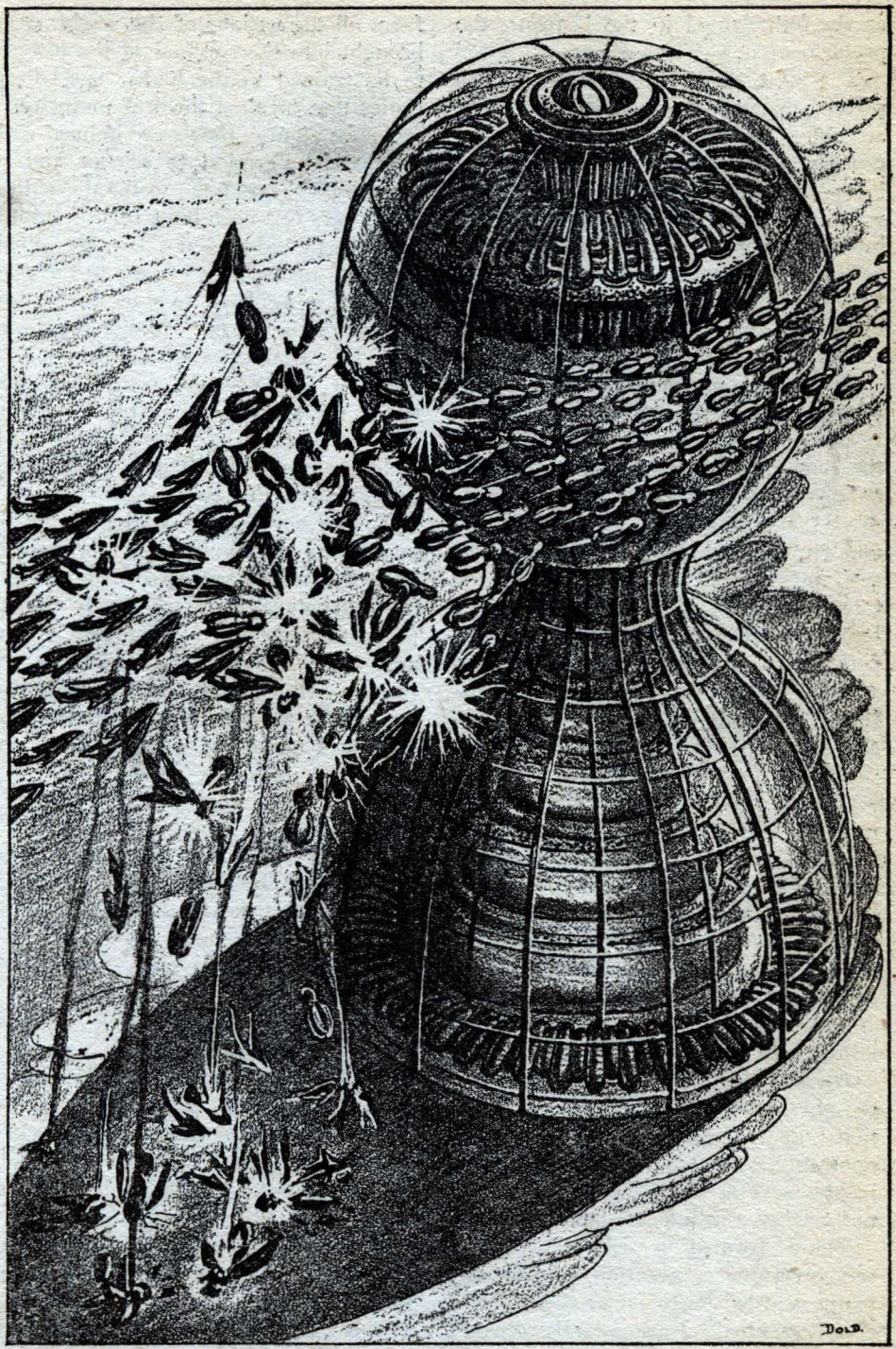
Within the gigantic inclosing bubble of transparent impermite, the sliding facets of which were now open, a network of strong light girders crisscrossed the gap. Hundreds of tubes radiated upward from their support like a floral spray, each of them topped by a three-hundred-foot lens which glittered blindingly under the strong embrace of the sun.

The curving interior of the tower was a bottomless pit through which great tubes and cables plunged in intricate orderliness. The smooth circumference of the tower was a double shell, several hundred feet in cross section, and elevators pierced its thousand floors on the long upward rush to the observation rim near the peak. Suspension catwalks thrust their slender fingers across the interior void to render the central cables properly accessible.

The year 2540, half a century before, had seen the last ton of coal mined out of Antarctica. One hundred years before that, oil had disappeared from the underground reservoirs. Accelerating exploitation denuded the earth of all former sources of power. And in the twenty-sixth century the machines did everything. The handicrafts were forgotten arts. One week of idle, moveless machines, and the teeming billions who had spawned over the continents during the age of plenty would perish in helpless agony.

For once the nations of the earth acted in concert. Nationalist hatreds, chauvinistic designs, ambitious rivalries, were perforce laid aside when the reports of the geological surveys came in. An international council was formed, the project of the utilization of solar heat was examined and found feasible, and feverish construction of two great solar towers to tap that inexhaustible supply began in the year 2510. No. 1 reared its stratosphere height in the neutral area of Arabia; No. 2, the antipodal tower, in Mid-Pacific, on an artificial island bisecting the equator.

It was a race against time. The tremendous towers took fifteen years to build. Disaster was circumvented by a scant five years. Now, however, as long



The two giant fleets met in a cataclysmic smash. Great bombers sliced through each other; blinding flames slashed the stratosphere. War!

as the sun flamed in the heavens, the problem of power was solved.

The vast energy of the solar orb pierced through the rarefied blanket of air above the towers with barely perceptible diminution, smote the burning lenses at the temperature of boiling water, slid down the great tubes in ever-increasing concentration through an ingeniously arranged series of subsidiary lenses, until, twenty miles below, the hundreds of spearheads of focused energy met in climactic fusion.

Only the stripped atoms of the impermite chamber could safely hold the resultant supernal flame. Only within the cores of the very hottest stars were temperatures comparable to this. Hundreds of thousands of degrees danced and roared their fury at the incredible restraint, but the resistant impermite tubes sluiced the flaming energy safely into the bowels of the earth, into a complex array of machines and thermocouples and dynamos, there to be transformed into subtler, but no less power-charged, electricity.

Twelve hours each day, for fifty-odd years now, the sun had flamed energy into the vast cells of the underground storage batteries, from which reservoirs it was broadcast on tight directional beams to thousands of local stations, there to be used as required for regional needs. No. 1 Tower supplied the western hemisphere, and No. 2 the eastern.

Displaying fine sagacity, the international council of scientists had laid down very simple and very stringent rules for the governance of the towers. The nations guaranteed their unconditional neutrality. Control was vested solely in the several hundred scientists and technicians who inhabited the towers.

These formed a self-perpetuating, self-governing corporation, subject only to the supervision of their own elected chief scientist. Each year a selected group of children, chosen by rigorous intelligence tests without discrimination from all the nations of the world, were brought into the confines of the towers, to be trained to the highly specialized duties that awaited them at maturity.

Above all else, they were imbued with a fanatical devotion to science and to the towers themselves; to the thesis that the towers had been built for the benefit of all mankind and not for the selfish purposes of any one group; to the plan that the power was to flow forever to all who required it, without regard to national, racial, or other distinctions. On them, it was insisted, rested the destinies, the very lives, of the sprawling millions outside. No monk of the Middle Ages ever submitted to a more rigorous code of behavior.

To prevent seizure of the towers by any group or combination for private ends, the walls were made of impermite, that curious element of closely packed protons which was impregnable against any offensive weapons known to the twenty-sixth century. The formula was evolved by the scientists themselves and destroyed upon the completion of the towers.

II.

THE TWO MEN on the observation rim were obviously worried. They stared down through the filtrine panels with frowning concentration.

The younger man said: "There's no sign of any trouble below, Benton."

Christopher Benton shook his head gravely. His gaunt kindly face was seamed with responsibility. He was the chief scientist of Tower No. 1, and Hugh Neville, the younger man, was his personal assistant.

"The desert wouldn't show it, of course," he said. "But beyond——"

He pressed a button. A visor screen sprang into life over the bulging filtrine panel. A man glanced inquiringly up at them from its pictured depths. He was thickset and blond, with weak blue eyes behind glasses. He was seated be-

fore an instrument board on which there were banked rows of signal lenses and under each a tiny switch.

"What luck, Eric?"

"None so far, sir. I can't contact a single station. See!" he pointed. "Every switch is on. I've kept them that way ever since the first break. Yet not a lens lights to show contact. I've checked our own circuits and found everything all right. The signals are going through. The trouble is outside."

"How about Solar Tower No. 2?"

Eric Mann said slowly: "No answer there, either."

Neville jerked forward. "Good heavens! That means——"

Benton made an almost imperceptible gesture that stopped the other short.

"Thank you, Eric. Keep on trying," the chief scientist said and snapped off the screen. The Teutonic features of the communications man faded quickly from the white oblong.

"We had better keep our surmises to ourselves a while, Hugh," Benton said heavily.

"But what could have happened to the Pacific Tower?" the younger man protested. It was evident that inaction sat uneasily on his broad shoulders. "A breakdown? They have emergency equipment. And the local stations! Our power output recorders show that they are all taking their usual loads, yet they can't, or won't, answer our signals."

"Since last night they have doubled their intakes," Benton corrected gently. "I've been expecting something like this for years."

"What?"

The chief scientist did not answer. Instead, he knifed the switches that connected the series of telescopes and sound gatherers which ringed the observation rim to the visor screen.

"They have a range of five hundred miles," he said. "Perhaps they'll bring us an inkling of what's taking place in the outside world."

The screen lighted up again, and the men leaned forward in breathless fascination as the scenes slowly passed in review. First Northern Arabia—the desert had bloomed under a century of irrigation, and great white cities nestled between the golden glow of interminable orange groves.

Even as they watched, the largest of the cities seemed to heave itself bodily into the air and rain back to a shattered earth in a tumbling ruin of disintegrated domes and minarets and marble columns. Twelve minutes later, through the sound amplifier, came the booming thud of the explosion. Then even as the screaming air waves blasted their way through the observers' eardrums, the scene shifted. The next telescope in the series had taken up the tale.

LONG before the sound had come through, however, Hugh Neville was on his feet, his face white, his fists clenched. "That's Haji, a hundred and fifty miles away. Gone up, smashed, with three hundred thousand inhabitants! What does it mean?"

"What I had feared." Benton's shoulders sagged under a seemingly unbearable load. "War!"

The visor screen had shifted to the muddy waters of the Persian Gulf. All seemed peaceful on the slowly swelling sea. A few knifelike prows of cargo vessels, completely inclosed, cut through the waves at a terrific rate of speed under the impact of the surging power from the tower's broadcast.

"Nothing brewing out there," Hugh said confidently. "Perhaps it's only a local squabble. Ibn Saud, Haji's ruler, had enemies."

He had hardly finished when little black specks appeared on the edge of the lighted screen. They moved with the speed of lightning across the waste

of sky, growing as they did so into a horde of huge stratosphere planes that plunged with breathless rush for the cargo ships. Little brown pellets dissociated themselves from the hurtling planes, fell with agonizing slowness straight for the doomed vessels.

The cargo vessels saw the approaching menace and submerged, diving desperately for safety. The bombs smacked into the sea, and the waters rose in a gigantic waterspout. The farthest ship had delayed getting under a trifle too long. Its fragments rode the crest of the spout. Not a sound came through except the quiet *slap-slap* of the waves of fifteen minutes before. It would take that long for the roar of the bombs to reach the amplifiers. And again the screen changed to the third of the telescopes in the series.

The scene now was the broad Arabian Sea. The long billows were deserted. But, high overhead, squadrons of planes were locked in flaming warfare.

The lower atmosphere was a pelting hail of crisped, shattered, unrecognizable things. The amplifiers resounded with the noise of earlier battle. Then, *click,* and Aden and its Gulf swam restlessly over the screen. Aden was a man-built Gibraltar, the mightiest fortress in the eastern waters, the last stronghold of a once-great empire. Its great blocks of ferro-concrete rose frowning from the sea; its walls shimmered with defensive vibrations.

It was being besieged—by sea and by land and by air. Great fleets darted past in zigzag procession, churning the water with their speed, belching black darkness to envelop and make themselves inkily invisible; the stratosphere disgorged hundreds of bombers that went whistling at a five-hundred-miles-an-hour pace over the beleaguered stronghold, dropping tons of deadly delayed-action explosives.

On the land side, great tanks, like monstrous caterpillars, and shimmering with their own defensive vibrations, jumped ditches and canals, leveled off uneven terrain, surged at eighty miles an hour against the gaunt pink walls. The noise was indescribable.

Sheeted flame completely enswathed the city. The shells and disruptors exploded in a fury of sound. The heat rays bit into the ferro-concrete, sizzled in futile fury.

For the protective screen of positron swarms was holding. Here and there a combination of offensive powers crashed through the curtain, and huge chunks of ferro-concrete went hurtling inward. Then the unending stream of positrons swerved back to its original position. The defenders, through lightning-swift gaps in their defensive screen, hurled projectiles out at the attacking forces. Ships, planes, and tanks crumpled and smashed, but there were plenty more to take their place.

Click! Aden went blank, and the coast of Africa heaved into view. All along its steamy indented shore line, fronting the brick waters of the Red Sea, was ruin and desolation.

Benton seemed suddenly aged. "This is no local war," he said. "The whole world is aflame. The nations are at each other's throats. With modern weapons, that means an end to civilization, an end to everything man has been working for during the centuries. It is a pity!"

Hard fires burned in Hugh's eyes. "We can put a stop to it," he said quietly.

The older man looked at him in surprise. "How?"

"Very simply. Shut off the power broadcast."

BENTON shook his head as if he had not heard aright. He repeated the words with gasping intonation: "Shut—off—the power—broadcast!"

Their meaning seemed to penetrate slowly. He peered into his assistant's

face. Perhaps he was joking, though such a sacrilegious jest was in the worst possible taste. But the young man's countenance was grim, hard.

Anger flamed then through the chief scientist. "You are mad, Hugh!" he exploded. "Shut off the power! You, my assistant, second in command, to suggest such a thing, even as a joke!"

"I was never more serious in my life," Neville returned calmly.

Benton shook his head in sorrow. "Since the towers have been built, no one has dared entertain such a treasonable proposition. Why, man, our oaths, our life's training, our whole reason for existence as scientists and custodians of the towers, have been dedicated to the proposition that the power must never cease, for an instant even, that it is the common property of all mankind, of all who wish to use it."

He placed his hand on Hugh's shoulder and spoke more kindly: "Now let us hear no more of it."

Neville shook his hand off and faced Benton with restrained anger. "If this is what training from birth and the constant reiteration of catchwords has done to us, then it is better that some one blow the tower and all its complement of routine-befuddled scientists to smithereens. It is all very well to repeat mouth-filling phrases—service to humanity, power to all without distinction of race or creed or condition! Swell! But don't you see, Benton, those phrases are hollow mockeries now, deadly, dangerous?

"By continuing to broadcast our power, we shall be as directly responsible for the destruction of civilization, for the blotting out of a world, as though we personally were out there heaving bombs and wielding conite disruptors. It is the power we furnish which makes their weapons possible. Stop the broadcasts and the war must stop. Within a week the nations will be on their knees, ready for any terms we care to impose. It is high time trained scientists take over. The politicians and statesmen have made a botch of things."

Benton said harshly, his features twisted into only remote resemblance to their ordinary kindly wisdom: "Take care, Neville. You are exceeding all permissible bounds. It is unheard-of for a tower scientist to breach the confidence which has been reposed in him. I as chief can listen to you no longer. Go to your duties and let us hear no more of it. Otherwise I shall be compelled to divest you of your emblem as a scientist and expel you into the outer world of men."

Hugh fell back a trifle. His eyes fixed in wide surprise on Benton. "You would do—that?" he said slowly.

Only once since the building of the towers had that ultimate punishment been invoked, and that was in the first ten years. The culprit had been a member of the first group, a man reared in the outer world, not one steeped from infancy in the traditions of the towers. Yet even he, shamed beyond endurance at the disgrace, had committed suicide.

Benton said in a low, barely audible voice: "Yes." For he loved the young man who was his assistant. Then, with fine inconsecutiveness, he added: "Besides, Tower No. 2 could supply the entire world in an emergency, even though we should quit operating."

Hugh started eagerly: "I could——"

A throbbing of supercharged motors beat from the local sound amplifiers into the filtrine-inclosed observation rim. Both men turned to gaze out through the panels at the star-studded sky, then down at the curving earth.

Far below, at the ten-mile level, a black speck swarmed over the western bulge. It grew rapidly on the sight, became distinguishable as a two-seater speed plane, hurtling full tilt for the tower under the impact of its electrically impelled motors.

Behind, barely twenty miles away, a fleet of battle planes rose like a cloud of bees over the horizon, droning with rapid vibration. The observation rim thundered with the multitudinous roar of many engines.

Benton snapped off the amplifiers, and the racket ceased abruptly. He sprang to the switch which controlled the domed bubble over the concentration lenses. The transparent impermite panels slid smoothly into place. The tower was wholly covered now, impregnable against outside assault.

Then another switch. The heavy blond features of Eric Mann looked at them from the visor screen.

"Contact those planes," Benton ordered. "Find out their identity. Demand to know what they are doing in tower territory. Don't the idiots know it is forbidden?"

"At once, sir." Eric plugged the local signal. His head was cocked at a listening angle; his features were impassive.

He looked up. "They don't answer, sir."

Neville said bitterly: "Perhaps they know the tradition of the towers. Service to all, even when you invade the neutral area. Perhaps they even have grandiose ideas. They may think they can capture the tower."

"Keep quiet!" Benton said sternly. His face showed conflicting emotions. "Eric!"

"Yes, sir."

"Signal them again. Warn them, if they don't answer or leave at once, we'll——"

III.

BENTON left the phrase hanging in air. Too late he realized the ridiculousness of threats. The tower held no offensive weapons. Appeal to the nations? They were mutually at war, and such an appeal would be worse than useless. Hugh's idea? He banished it resolutely. Every one knew that the scientists of the tower would continue to furnish power even in the face of a threat to their own safety. It was taken for granted, as a matter of course, even as the air they breathed. Such was the overpowering weight of tradition.

Eric stared from the screen. His face was no longer impassive; his pale eyes gleamed behind the glasses.

"The battle planes do not answer, sir. But the single-speed plane in front has just signaled. It's the code word, sir, the code of the towers."

"Good heavens!" Benton gasped.

"He's asking for entrance, sir. What shall I do?"

Benton said harshly: "It's a ruse; some one has betrayed the word. Keep the landing port closed."

The speed plane was not more than fifteen miles away. Little puffs of smoke dissociated themselves from the following battle squadron. The puffs made white tracers through the rarefied air, leaped the intervening gap and exploded in great white clouds immediately to the rear of the lone flier.

Neville jumped. He spoke rapidly at the visor screen. "Open the landing port at once, Eric. Let him in; he's being fired at."

Mann's eyes sought Benton's doubtfully.

The chief came out of his daze. "Neville's right," he said hoarsely. "It must be one of our men."

Ten miles below, in the smooth round of the tower, a section of black impermite slid open. The speed plane hurled itself through the stratosphere, was caught in the short guiding beam of the port, swung cradling along the ray into the interior, and cushioned to a halt on the smooth white tarmac within.

Hardly had the impermite slide closed to an unbroken surface behind it than an inverted cone of flame seared

through the atmosphere and blasted greedily at the tower.

Conite disruptors had been employed against the internationally neutral tower, the first overt act since it had been built. The flames licked harmlessly against the compacted protons, however, and soon burned out.

"They'll pay for this!" Neville cried fiercely. "What nation do they belong to?"

Benton looked haggard and weary. "I do not know," he muttered. "The planes are painted black and have no distinguishing marks."

The heavily armed vessels swerved suddenly in a great arc and vanished back over the distant horizon. It was as if they, too, had realized the temerity of their crime, or, Hugh thought, the uselessness of their weapons against the tower.

Benton spoke into the screen: "Send the occupants of the plane up to the observation rim at once."

WITHIN a few seconds the elevator rushed smoothly to the platform; the beryllium door went wide, and two men stepped out. Neville surveyed them curiously; he had never seen either before. But then the scientists of the towers rarely ever left their posts, and then only on approved and specified journeys.

One of the new arrivals was tall, slender, and wiry; the other shorter, yellow-skinned, and his eyes were shaped like almonds. Both men's eyes were red-rimmed with fatigue, and their clothes were rumpled as though they had been slept in.

"Identify yourselves, gentlemen," Benton commanded.

The tall young man essayed a grin. "I am Bob Jellicoe, the gentleman to my right is Atsu Mira, and we were both very recently associated scientists in the confining duties of Solar Tower No. 2."

"You are most welcome, then," the chief scientist said cordially. "I am Christopher Benton, and this is Hugh Neville, my assistant. What——"

Neville interrupted: "Out with it, man! What has happened to your tower?"

Jellicoe looked slowly at his comrade, the little man.

That slant-eyed person shrugged, opened his hands a little, and answered politely: "It was captured!"

Benton cried out: "The tower captured! By whom? How is it possible?"

Jellicoe's fatigue-stricken eyes burned. His voice was harsh: "It is not only possible; it is done; it is finished! A traitor within the gates, if you want to know. We were warned in time of the outbreak of war, so that when the hydroplanes swarmed around the tower, we were prepared. All ports were closed, and Rallitz, our chief, signaled furiously that if they didn't get out of the neutral zone at once, the power would be shut off."

Neville stole a sidelong glance toward his own chief. He saw the slowly mantling flush.

"They started arguing," Jellicoe went on, "but Rallitz was adamant. The commander of the fleet swung his vessel around as if to obey. We relaxed our guard a bit then, I'm afraid, for we didn't notice until they were close in that the momentum of their swing had brought them almost alongside.

"I was standing next to Rallitz on the observation rim at the time, and we saw them clearly through the filtrine magnifiers. The old chief spluttered guttural oaths and sprang to the power switch. He clamped it down so hard that it almost broke.

"But the ships kept on coming. The secondary switch on the rim had not worked. Even as we watched helplessly, the lower-level section opened to

admit the battle planes. The tower had been captured without a fight."

"Poor Rallitz!" Benton muttered. "I met him once or twice. I never thought that he would forget the tradition of the service."

"What do you mean?" Bob Jellicoe exclaimed.

"He tried to shut off the power, didn't he?"

Jellicoe and Neville exchanged glances. Hugh's was charged with exasperation.

He made a little gesture. "Never mind that," he said. "What nation captured the tower and who was the traitor who admitted them?"

"It was," replied Atsu Mira, "the Midcentral nation, and the traitor—we do not know."

"The Midcentral!" Hugh puzzled. A vision of heavy blond features arose in response—Eric Mann, for instance. "Were any of the men members of that nation?"

Benton cried out in reproof: "You forget, Neville, that in the towers we have no nationals; every man is a tower scientist—and nothing else."

"That is, of course, true," Jellicoe said formally. "But the tower was captured—and it was an inside job. The only national of Midcentral in the tower, however, had a perfect alibi. He was with Rallitz and myself on the observation rim at the time."

"How did you get away?" Hugh asked.

Jellicoe grinned and turned to the little yellow-faced man. "That was Atsu's fault."

Mira bowed deprecatingly.

"Rallitz had darted for the main elevator before I had a chance to stop him. He was swearing that he'd fight the scoundrels with his bare hands. The port slammed in my face, and he dropped downward." His face sobered. "Poor firebrand! They must have killed him. I went for the second elevator and tried to beat him down. I couldn't let him go it alone. But on reaching the lower stratosphere port, the car stopped. Atsu was there; with a speed plane on the tarmac. He explained that it would be useless to fight, and we could get away to warn you. I saw the point, and here we are."

Benton took a deep breath. "And the rest of the world?"

Mira said quietly: "Everywhere is war! Everywhere nation against nation. What is called, I think, a dog fight. We saw cities wiped out, countries ruined, valleys filled with poison gas, tanks exploding, waters dotted with blazing ships, the stratosphere raining fragments."

"It was a miracle we came through," Jellicoe broke in. "Our single plane was an outlaw; every one's hand was against it. Luckily it had plenty of speed. Our closest call was just as we got to your tower. That fleet belonged to Northcontinent."

The visor screen buzzed, and Eric Mann looked out at them.

"A message from the chancellor of Northcontinent," he said tonelessly. "He wished to speak to you, sir."

Benton's eyes glittered. His shoulders straightened. "Switch him on!" he snapped.

THE FEATURES of the communications chief faded, and those of a tall, thin man with bold aquiline nose and piercing look took their place. He was seated at a desk in a hermetically sealed chamber. Neville knew him from screen conversations on more amicable occasions.

The chancellor came to the point at once. "Benton," he surveyed them all in one swift glance, "the neutrality of the towers has been broken. In case you do not already know it, Midcentral has Solar Tower No. 2 in its control."

"I know that," the chief scientist said, very low.

The chancellor watched him keenly. "Rallitz betrayed the tower into their hands."

Bob Jellicoe sprang toward the screen, fists clenched, his face dark with anger. "That's a lie!" he exclaimed. "Rallitz was himself betrayed. He is dead, killed, fighting to save the tower."

The chancellor's eyes pierced him through. "Take care, young man," he said coldly, "how you give me the lie. Who are you?"

Jellicoe restrained himself. "I am, or was, one of the scientists of Tower No. 2. I've just come from there. And since when does a tower man take orders from any one?"

The chancellor shrugged and turned his gaze back to the troubled face of Benton. "He is insolent. Perhaps he, then, was responsible——" He broke off with a meaningful pause. "But that is neither here nor there, Benton. Midcentral has the tower. Already they have cut off power from all stations except the ones they control. The rest of the eastern hemisphere is helpless, starving. Within a week they'll all be dead or under the domination of Midcentral. Within a month the whole world will have fallen into their clutches. You know what that means—a tyranny such as this earth has never seen."

Benton said: "What are you leading up to?"

The chancellor leaned forward. "This! We must fight fire with fire. Give me control of your tower temporarily. I could then concentrate all your output into my battle armament, force the rest of the western hemisphere to join forces with me. Within the month we shall have beaten Midcentral to its knees and recaptured Tower No. 2."

"And then?" Benton's tone was barely audible.

The chancellor's grin was falsely hearty. "Oh, and then—ah—of course, the towers will be given back to their rightful holders, the scientists, and the world will have the peace again that Midcentral has ruthlessly violated."

Neville said tensely: "You are lying again, chancellor. Once the towers are in your clutches, you will never let them go. You will use them to set up your own tyranny over the entire world. There is little difference between your schemes and those of Midcentral."

The thin man's face went black with rage. "Why, you—you infernal puppy," he stuttered, "I'll break you in two for that!"

Hugh remarked very gently: "That is a game I would like to play with you."

"Stop it!" Benton commanded. He looked steadily at the screened visage. "Chancellor, you forget things. You forget the very purpose of the towers, the oaths we took, the ideal service to all humanity we are sworn to give. Without fear or favor, without discrimination to any one, the power must go out. What do your insane quarrels matter to us, who man the towers?

"Mankind must and shall continue to live, in spite of your wars. The lives of every man, woman, and child on this earth, the billions who have always known that they need not want for food and comfort and shelter while the towers operate—we cannot let them down now, to suffer and die, because of the selfish aims of their political heads. The power will continue to go out, to all who need it."

"But," argued the chancellor reasonably, holding himself in with a tremendous effort, "Tower No. 2 is producing only for Midcentral. The others will die in the eastern hemisphere. Is that fair or just?"

"They will not die. We shall extend our sending radius to cover the whole earth; we shall ration the power to all. It may mean a little less to each, but it can be managed."

The chancellor made no further effort to restrain himself. His rage

poured out. "You stiff-necked idiot! I gave you the chance to join me; to remain in charge under me. Now I'll take your tower and make you wish you were never born. You and your silly, schoolboy traditions! Bah!"

The screen snapped off abruptly. The chancellor was gone.

BENTON'S nostrils twitched white. He pressed a button. "Eric," he said rapidly, when the communication chief appeared on the screen, "make certain all ports are closed tightly. Cut off all subsidiary switches except your own. You will be personally responsible for their operation. No one is to enter or leave the tower hereafter, under any pretext, without my personal authority. And, Eric——"

"Yes, sir."

"Step up our sending radius to include the eastern hemisphere. Ration the power broadcasts so that every station receives an equal share."

Jellicoe started forward. "But that would mean——"

Benton halted him with a gesture. "With one exception, Eric. Cut off all power from the stations controlled by Midcentral. Your board will give you the list. Do you understand?"

For the first time the broad expressionless features showed emotion. A red flush crept slowly up behind his ears. "I understand."

Benton said sharply: "Eric Mann, you were born a Midcentral, were you not?"

The man leaned over his instrument board, fiddled aimlessly with the controls. They could not see his face.

When he spoke, all tone had been wiped out of his voice: "I am a tower scientist, sir. I have no other country."

"Good! Please remember that."

Then the screen was blank again.

Atsu Mira said softly: "Excuse me, please. But Tower No. 2 was lost from inside. Midcentral will try for this one, too. So will Northcontinent. Maybe you trust this Mann too much?"

Benton drew himself up proudly. "In this tower we are all scientists; nothing else. You heard what Eric said."

The little yellow man shrugged politely and made his face blank.

But Neville took up the challenge. "There is something in what Atsu says. Eric may be all right, but there are over three hundred of us. Some of the men may still have what used to be called patriotic emotions for the countries of their birth. Technically, looked at from that standpoint, we are all mutual enemies in here and should be at each other's throats, praying for victory to our particular land——"

"Neville is right," Jellicoe broke in. "The chancellor of Northcontinent was not just making threats for effect. He has something up his sleeve. He knows the tower is impregnable to direct frontal attack. Perhaps he has already established communication with one of the scientists inside your walls."

"Never!" Benton exploded.

He turned on his heel, strode angrily to the main elevator, stepped inside, slid the port into position behind him, and dropped with breath-taking speed toward the lower levels.

The others watched him go.

"I still say that we should cut off the power," Hugh said steadily.

"It would be the best plan," Atsu murmured.

"We can't very well do that now," Jellicoe objected. "It would mean that Midcentral would meet with no opposition."

"I forgot the second tower."

They stared at each other helplessly. Outside, the world was flaming red war. Civilization was on the verge of a total eclipse. Yet they could do nothing about it, except keep up the traditions of the service, as Benton insisted.

"Sooner or later," Hugh remarked

bitterly, "there'll be no stations left to transmit power to, and no people to receive its benefits."

Bob Jellicoe said suddenly: "There is only one way."

"What is that?"

He looked around carefully. "Any screens open?"

"None. You will not be overheard."

"This is my plan: When it gets dark, I'll sneak my plane out and head back for my tower. I ought to get there before dawn. I'm sure the scientists were left at their posts—under guard, of course. It would take a year at least to train outsiders to the jobs. Now we have a secret identification signal between us—aside from the regular code. When the control man hears it, he'll know what to do.

"Once inside, I'll be a pretty poor sort of a chap if I can't throw a couple of monkey wrenches into the machinery. You may take it for granted that by this time to-morrow Tower No. 2 will not be functioning."

"And then," Neville added, his face aglow, "I'll pull the same job here. It may mean a broken heart for Benton, but it can't be helped. Before repairs can be made, the whole world will beg for peace. We must balance a week's suffering against the destruction of all mankind."

"That's swell!" Jellicoe said cheerfully. "It's up to you now to get me out."

"Maybe," Atsu interposed deferentially, "it is better that I handle this situation. My honored friend, Neville, is under what is called a cloud. If tower open and friend Jellicoe escape, contrary to orders, it is good for Neville to have what is known to the vulgar as an alibi."

"That's an idea," agreed Jellicoe. "You had better let Atsu handle the works, Neville. Benton would remember your expressed views and clamp down hard if you couldn't account for every minute of your time."

Hugh groaned, but saw the point.

"Thank you very much for esteemed confidence." Atsu bobbed his head. "It is almost twilight. Explain essential workings of machinery—maybe slight difference from ours; also where each man in charge is."

IV.

IN THE VAST underground department of the tower, the day shift was nearing its end. Soft blanketing twilight enveloped the sleeping sands of the outside desert. A faint mist swept in from the Arabian Sea, obscuring the ever-burning stars. It wrapped itself around the sky-piercing tower to a height of five thousand feet. Up above, fifteen miles of impermite walls loomed in eternal silence, bracing the thin clear stratosphere where the stars hung luminously by night and by day.

Within the topping bubble the sun still shone, and the gigantic lenses still concentrated the last slanting rays down through miles of tubes and lenses into the furnace hells of ultimate fusion.

The vast complex of machinery far below still pounded and whirred, converting the inexhaustible heat into electrical surges. But within minutes it would be night even in the stratosphere, and the machines would slowly idle down to quiescence, shining sleeping monsters that would wait for another morning to spring again into beating life.

Then the night shift of technicians went on duty, the scattered few who kept certain essential duties alive during the long hours until dawn and guarded key centers. The communications board was of course the most important of these.

Already the day men had gone to their quarters. Philippe Thibault came sprucely into the communications room.

Eric Mann looked up at his dandified, yet vitally alert, assistant.

"Hello, Philippe!" he greeted. "Is it time?"

"But of course, Eric. Catch you forgetting your shift is up."

"There's a reason," Mann remarked slowly. He seemed to have difficulty with his speech. "Benton has given strict orders, made me personally responsible for their execution. I have still about an hour's work. Tell you what, Philippe. Come back at nine o'clock to relieve me. By that time I'll be through. Then you can take over. How does that sound?"

"Magnificent!" Thibault gestured vivaciously. "To tell you the truth, Eric, I was just in the middle of an exciting spy story—now I'll be able to finish it."

The communications chief smiled faintly behind his glasses. "Those eternal spy stories of yours! The feeble efforts of weak imaginations. I'm surprised you read them."

Thibault said good humoredly: "They give one vicarious excitement. Life in the tower gets tedious now and then. And as for feeble efforts—listen to this!"

"By nine o'clock, then," Eric reminded him and bent over the board.

"Sorry!" Philippe chuckled and went out of the room.

He strode whistling through the dim cavernous interior, threading his way with sure knowledge between ponderous machines, exchanging short greetings with the few scattered custodians, each seated comfortably in his own pool of light. He did not notice the slight figure that glided noiselessly from shadow to shadow, avoiding the areas of illumination, pressing against a looming machine until Philippe had passed, then darting swiftly to the cover of the next one.

Philippe entered his elevator, shot swiftly to the mid-belt of dormitories, already in his mind's eye anticipating the mounting excitement of the spy story that awaited him.

ATSU MIRA was but a shadow among shadows as he wormed his way into the darkened communications room. A brilliant spot of light flooded the board to the farther end and splashed over the bent, absorbed blondness of Eric Mann. The room was desperately silent, filled with the brooding hush of danger. Atsu paused, tensing his muscles for the last swift spring across the composition floor. He held a compression disk lightly in his hand.

Mann stirred and grunted impatiently. Atsu stiffened in his stride, waiting. A little red signal lens glowed on the board. It was too far away for Mira's straining eyes to determine what station it came from. The communications chief made a feverish little sound with his teeth; his hairy hand sprang out and did a surprising thing—he clicked off the visor screen.

A swift guilty glance around barely missed the intruder's crouching form. Mann scooped up a silence unit, adjusted its electrodes two feet on either side of him. Only then did he plug in under the glowing signal.

Atsu waited. He was curious. He saw Mann's head cocked in listening attitude, saw the queer mixture of fear and greed that flamed in the broad squat face under the spotlight, saw the thick lips open and close rapidly.

He knew that Mann was talking to the unknown station, but he could not hear what was being said. The silence unit took care of that. It was a simple contrivance to insure secrecy; the pulsing orbit of waves that circled between the electrodes damped the sound waves so that they were inaudible outside a limited area.

Eric Mann shook his head several times as he talked soundlessly; then he listened again, and the greed in his face

overshadowed the brooding fear. He nodded, reached up, and plugged out the station.

As he did so, Atsu acted. His quick pantherish rush brought him upon the unsuspecting communications chief before he had a chance to move. A slight but muscular hand clamped the compression disk over the thick, fleshy lips. Mann saw the descending disk and screamed. But the still effective silence unit made the yell inaudible in the outer chamber.

Then he slumped suddenly in his chair. The disk on pressure had released a fine spray of powerful narcotic. Eric Mann would sleep for at least an hour under the dose.

Atsu worked swiftly. He lifted the heavy figure with surprising ease, carried it to a darkened spot in the room, and dumped it down unceremoniously. Then he glided back to the board. In his mind's eye he had fixed the position of that erstwhile glowing signal lens. He stared at its blank rotundity now, read the name of the station underneath. He started violently, looked at it again. He passed a bewildered hand over his face and shook his head. Could he have made a mistake? Might it not have been a lens or two off either way?

No! He had fixed it too definitely before he had attacked. His yellow features went grim and thoughtful. He swiveled hastily around, raked every cranny of the room for skulking shapes, thrust his head out of the silence unit. No one was around; not a sound filtered in from the vastness outside.

Satisfied, and with a slow grin mantling his ordinarily impassive blankness, he knifed the switch which opened the exit port of the lower stratosphere landing unit.

BOB JELLICOE fiddled impatiently at the controls. He was seated within the hermetically sealed body of the speed plane, waiting for the port to open, for the guiding beam to thrust him out into the stratosphere. Through his viewport of filtrine he could see the taut, anxious features of Hugh Neville, eyes glued to the smooth round of the impermite wall.

The minutes sped by, and still nothing happened.

Bob jerked open the filtrine panel, thrust his head out. "Now what the devil's taking Atsu so long?" he muttered. "I should have been out of here twenty minutes ago. As it is, I'm shaving dawn too close at the other end for comfort."

Neville turned his head. "I'm afraid he's run into trouble. I should have gone myself; my presence down there would have excited no suspicion."

"If I don't get out in ten minutes, there's no use my even starting," Jellicoe said resignedly.

Neville's square jaw tightened. Without a word he moved toward the elevator.

"Hey! Where are you going?" Bob cried.

Hugh flung back over his shoulder without pausing: "Down to the communications room. Atsu or no Atsu, you'll be out on time." And the elevator slammed shut.

Bob cursed and lifted his eyes. The air-lock signal was glowing. That meant that within thirty seconds the inner slide would open and both plane and air in the chamber swoosh out along the guiding beam into the rarefied stratosphere.

He ducked his head hastily into the cabin, sealed the filtrine panel just in time to feel the gliding movement of the plane, see the yawning black of outer space. Then he was out, cradled along.

"Atsu *did* turn the trick!" he told himself exultantly as he switched on the current for full speed ahead.

The plane leaped forward into the high reaches of the night like a rocket.

Neville hurried grimly through the

cavernous depths of the tower. Had Mira slipped up? Had Eric become suspicious and raised the alarm? Was the whole plot even now being exposed?

The silence of the darkened vastness somewhat comforted him. There had been no hue and cry. He encountered no one, but then he had taken care to avoid the fixed guard posts.

He came swiftly to the communications room, listened. Not a sound from within. Very quietly he stepped inside.

ATSU MIRA waited with the impassiveness of his race until the flashing lens showed that the speed plane had passed out of the tower, then he switched the port back into position. What he had told Jellicoe and Neville he would do had been accomplished. Now, according to plan, it was his duty to restore Eric Mann to his seated position in front of the board, spray him with the counternarcotic he had in his pocket. Within a minute the sleeping communications chief would be wide awake, and all memory of the attack and the potion erased from his mind. It would be as if he had nodded at his job for a fleeting instant.

Instead, Atsu Mira searched the board carefully until he found the signal lens he wanted. He switched in underneath, making sure that the silence unit was still functioning.

A guarded voice swirled within the limited confines of the electrodes: "Stillwig!" It was a code word.

Atsu grinned delightedly. "K-4."

"Good! You are at the controls?"

"Yes."

"You will proceed according to plan?"

"Of course! By to-morrow noon Tower No. 1 will be out of commission." He chuckled. "And the assistant in command himself will do the work. I have so arranged it."

"Splendid! Do not delay. Goodby."

"Wait! I have information. Jellicoe, who flew me here, is on his way back to Tower No. 2. He has a secret code word to obtain entrance from his friends inside. I could not find out what the word was. Take all precautions. He must not enter."

The invisible voice was coldly cruel: "We shall take care of him."

"Another item of importance. I may be mistaken, but I am almost positive I caught Eric Mann, the communications chief of this tower, talking secretly to a station which belongs to——"

Atsu's supersensitive nerves felt the impact of watching eyes. Long training made him act smoothly, efficiently. His hand flicked to the switch, shut off the telltale glow of the station signal, glided to the control of the silence unit. Then, without haste, he arose, turned around.

His eyes widened at the sight of Hugh. "Neville!" he whispered. "You should not be here. You will not be able to plead what you call alibi."

"You took so long, I came down to find out what caused the delay."

Atsu bowed formally. "It took little time, but Atsu Mira never fails. Friend Jellicoe already speeding to destination; there in corner is honored body of cowlike chief. He is peacefully asleep."

"Good!" Hugh approved. "Now we shall wake him up, and he won't be any the wiser."

Atsu put his finger to his lips. "Sssh!" He stared apprehensively around.

"What's the matter?"

"Treachery!" whispered the yellow man. "When I enter, I find Mann with silence unit set up, talking to certain station. I sneak up on him to give him whiff compression disk, but too late. He already switched off station. But I see which it was."

Hugh eyed him sharply. "That's Eric's job, talking to the outside world. What's the treachery in that?"

Atsu moved closer, whispered: "It

was Tower No. 2 our friend was making talk with."

Hugh jerked. "Are you sure?"

Atsu bobbed his head. "I am most positive."

Neville passed his hand over his brow as if to clear away a mist. "Treachery!" he murmured. "Within the towers—first No. 2; now here. The tradition of the towers! Bah! Poor Benton, with his loyalty and passionate devotion—how it will hurt!" He smiled quizzically. "Yet in a way, Atsu, we, too, are technically disloyal. In our case, however, it is for the greater good of all mankind."

"Of course!" Mira agreed politely.

"But Eric! Selling out to Midcentral. Or was it so-called patriotism for the land of his birth—the instinct that Benton was positive had been rooted out of the scientists?"

Mira listened attentively, but did not answer.

Neville gripped his arm. "You did not hear what was said?"

"No. The silence unit was in operation."

"Then we cannot be sure. Listen, Atsu. Not a word of this to any one. We must give Eric the benefit of the doubt and keep careful watch. Neither he nor any one else must know our suspicions."

Atsu bowed. "You are my chief."

"Give me a hand with him."

Together they lifted the limp body, set it in the chair, its head lolling over the desk in front of the board. Atsu took out a tiny squirt, sprayed the colorless fluid over the drugged man's face. Almost at once the color crept back into the flaccid cheeks.

Hurriedly they slipped out of the room, just in time to avoid the whistling approach of Philippe Thibault. Eric was already stirring.

At the mid-belt of the tower, Neville and Mira parted, each for his own quarters.

"To-morrow!" Hugh said.

"To-morrow!" Atsu echoed softly. "Perhaps, though, we watch friend Mann to-night?"

"It's not necessary. Thibault is on duty now, and I'll answer for his honesty. Eric, if he really meditates treachery, won't have a chance to do anything until to-morrow." His jaw hardened. "I'll see about him personally then. Good night!"

But a change came over Hugh as he watched the retreating back of the little yellow man. Something strange glittered in his eye. He swore softly to himself. For he had paused an appreciable moment in the doorway to the communications room before Atsu had sensed his presence.

His fingers drummed nervously against the wall of the elevator. Then, with a quick gesture, he closed the slide, pushed the button for the five-mile drop back into the depths of the tower. He must get to the bottom of this mystery before dawn.

V.

BOB JELLICOE flashed through he stratosphere on his journey half around the world at a tremendous rate of speed. The power waves from the tower he had just quitted surged through the plane's converters, actuated the superchargers that compressed the thin atmosphere, sent the propellers spinning at thousands of revolutions per second. Europe spread like a great map below. He switched on the infrared magnifying ray, sprayed it over the unfolding continent.

The ground lighted up with a pale red, featureless light, in which everything looked flat and wraithlike. But the beam was invisible from below, even to those bathed in its illumination, and therefore safer than the ordinary search ray.

Jellicoe sucked in his breath at the

spreading panorama. Where great cities had once stood were now scorched ruins, still smoldering, vast holes in the ground, deserts. Those few which remained shimmered with the blue defense-vibrations. In places the very ground itself burned with the unquenchable fires of the Dongan pellets.

His invisible beam caught and held on great hordes of fleeing people, streaming along the roads, stumbling in blind panic over shell-torn fields, falling never to rise again, crushed under the rush of the fear-maddened multitudes—a mass migration of men, women, and children who had never before known the bitter realities of warfare.

Even in the night there was fighting. Monster tanks locked in mortal combat; flames seared thousands out of their path. The darkness was torn by star shells and sudden blasting cones of fire. Huge battle fleets appeared out of nowhere, hurtled downward in headlong race. Once Bob had to dive sharply to avoid a head-on collision; another time a vagrant pellet exploded just off the tip of his plane.

Then, with backward-seeming rush, the Atlantic gleamed far below. Yet even here there was no peace. Huge submarines cleaved the green depths, grappled furiously with other shining silver fish; they rose to the surface and darted after cargo vessels like monstrous bugs, or burst through the water to rise into the air with a great unfolding of wings.

In the depths of the sea, on land and water, in the air, the war of extermination raged. Every man's hand was against his brother. Such suicidal mania could not continue. Within a week, unless somehow stopped, the fratricidal warfare would mean the end of civilization and reversion to the beast; or one nation, by annihilation of the others, would force its will upon the world. That nation, thought Bob grimly, would necessarily be Midcentral.

The Atlantic fled away beneath; then the welded unit of North America vanished like a dream, and the blue Pacific rolled interminably. Bob turned south, pushing his plane to the utmost. It was still dark.

A hundred miles away he saw the great hourglass-shaped tower, stretching its dim gauntness up into the heavens. Below, the predawn mist hid the Pacific, made it a tossing world of smoke. He checked his speed, rapped out the secret word on his transmitter. His comrades would understand.

He idled the plane along at a bare hundred miles an hour, waiting for the answer. White search beams plucked like questing fingers from the observation rim, far overhead, but he had no difficulty in avoiding their sweeping paths.

His heart hammered furiously. Why was there no response? Had his mates gone over to the enemy? More likely that they were watched, or that a Midcentral partisan had been placed in charge of the all-important communications board. Of course, that was it! He remembered the unknown traitor. In which case——

His receiver buzzed. He almost shouted his joy. Good old comrades! They had heard and understood. Naturally it was not the answering code word; there were enemy watchers.

He put on speed again; slammed directly for the mid-section of the tower. Already the great topping bubble was blazing with the morning sun. Within five miles the guiding beam caught him, held him on an even course. The impermite wall opened before him; the plane slid in and halted on the smooth white tarmac. He slid open the filtrine port, thrust himself stiff-leggedly out into the dimness. Only a pilot light glowed.

"Thanks, old mates!" he said to the

silent, clustering figures. "I knew you wouldn't fail me."

Then, for the first time, in the dimness, he noted a certain strangeness about the figures, the thick silence. These were not his comrades, these were—— He sprang backward, trying to somersault into the plane port.

It was too late. The figures converged on him in a swift, silent rush. Strong hands clutched at him, pulled him down. He tried to struggle, but there were too many of them. Something hit him heavily on the head; there was an explosion of stars, and he went under, unconscious.

HUGH NEVILLE, brows knitted, made his way swiftly and openly into the communications room. This was a job he would have to unravel alone. He dared not call upon Benton, his chief. In the first place, he had nothing but certain suspicious actions to go upon; in the second place, it would effectually put an end to his own scheme.

By noon to-morrow Bob Jellicoe had promised the stoppage of Tower No. 2. And Jellicoe struck Neville as being a man of his word. It was up to him, then, to throw his own tower out of gear. If he didn't, it meant that Midcentral would be helpless at the mercy of her foes, notably Northcontinent. He did not want that. The only effectual method of saving civilization was a quick peace without victory; and that meant he must do his part.

Philippe Thibault looked up quickly at his entrance, guiltily shoved the book he had been reading under the desk. He grinned apologetically at the assistant chief.

"Sorry, sir! But there's nothing stirring to-night." He indicated the lightless board. "So I thought it wouldn't harm to——"

Neville said: "I'm not here to snoop, Philippe. I come on very grave matters, and you've got to help me. Above all, absolute secrecy is essential, even from Christopher Benton himself."

"Eh, what's that?" Thibault was startled and showed it.

Hugh said rapidly: "When you came on the shift, did you notice anything about Eric? His manner, his demeanor, I mean."

Thibault's shrewd features sharpened. "Well," he admitted reluctantly, "he *did* seem a little thick and hazy; vague, if you know what I mean."

"I know all that; it's other things I'm interested in. For instance, the silence unit that was set up on the board. Did he say anything about that?"

"Eh! How did you know——"

"Never mind how I know," Hugh retorted impatiently. "What did he do or say?"

"W-e-ll, he seemed a bit upset; I'd say he was considerably excited. He pushed it down off the board quickly, as if he didn't want me to see it."

"A-a-h!"

That meant Eric himself had set up the silence unit, not Atsu. Then perhaps the little yellow man was right—Eric was the traitor. Yet Atsu had spoken to some one within the zone of silence before Hugh had entered the door. That, however, might be explained. He might have been trying to establish communication with Tower No. 2, to find out things. But, then, why hadn't he said something about it to Hugh?

It was all very complicated. He sighed and was aware that Thibault was watching him curiously.

"Listen, Philippe. Don't ask me questions, but I want you to contact Tower No. 2. Put up the silence unit. We mustn't be overheard. And I want you to disguise your voice like Eric's; pretend you are he."

Thibault stiffened. "Sir," he said formally, "I am under strict orders as handed down from the chief scientist himself. No one is permitted the use

of the communications board except Eric Mann and myself. Tower No. 2 is now an enemy station. Furthermore," he went on more warmly and more humanly, "I'll be damned if I'll play such a dirty trick on my chief."

"Your personal feelings and devotion to duty do you credit, Philippe," Neville approved. "But this involves the fate of both towers, not to speak of the future of the world itself. We've got along together in the past, haven't we?"

"Y-e-e-s."

"Trust me this once, then."

Thibault looked a long time into Hugh's clear eyes and sighed heavily. "I am committing a breach of duty, but I'll——"

Without another word, he reached for the silence unit, plugged it in. Then, while Hugh thrust his head into the circumscribed circle of sound, he switched contact with far-off Tower No. 2. The visor screen was off.

"Who calls?"

Cold, clipped words swirled around them.

Thibault altered the pitch of his voice. It was a perfect imitation of his chief.

"Eric Mann." He achieved the effect of whispered urgency. "I forgot to tell you something. Listen!"

"Eric Mann? You forgot to tell me something?" The bodiless voice sounded puzzled, angry. "Now what the devil do you mean? I never spoke to you. Who are—— Eric Mann! Hold on a second." Breathless silence, then: "You're communications chief of Tower No. 1, aren't you?"

"Of course; you know that."

The voice was suddenly wary. "Well, what is it?"

Hugh reached over and snapped off the connection. They stared blankly at each other.

Thibault said quietly: "I still don't quite understand, but if it was a test, you've made a mistake."

"Yes," Hugh agreed slowly, "I made a mistake. Eric is loyal. Now, Philippe, I'm making another test. This time I'll do the talking. Contact the tower again."

"Who calls?" It was the same cold, clipped voice.

Hugh slurred the words: "Atsu Mira. Very sorry, but some one suspicious. Found him calling you. He call no more—any one. I must tell you——"

Hugh allowed his voice to trail off to inaudibility. There was silence for two pounding seconds.

"Atsu Mira! Never heard of you." The far-off speaker raised his tones in seeming anger. "What the devil is this all about, anyway?"

Neville broke contact, switched off the silence unit.

Thibault gaped at him. "Now what in the name of Saturn's rings——"

Hugh was a study in complete bewilderment. "I don't know any answers," he interrupted rather peevishly. "Either I'm all wrong, or else—— Philippe," he said earnestly, "forget everything that has just happened; erase it from your mind."

"And why, pray, should the assistant communications chief erase matters relating to the tower from his mind?"

BOTH Neville and Thibault sprang to their feet, whirled around. Christopher Benton came slowly into the room, his usually kindly face stern and hard. His swift glance took in the silence unit, the guilty starts.

Hugh went white. "Benton!"

"Yes, Benton, chief scientist in charge of this tower. The man who loved you and whom you have betrayed. You and your fellow conspirator, Thibault. I saw the signal light. You were communicating with Solar Tower No. 2."

Hugh stiffened under the lashing voice. "It *does* sound bad, doesn't it? And what is worse, I can't even explain just yet. I can only ask you to trust

me; to accept my word without explanation that what I am doing is for the best interests of the tower, of the world. And Philippe has no knowledge of my plans; he did only what I beg you to do now—trust me blindly for a while."

The old man's eyes smoldered with mingled fury and sorrow. "You always were glib of tongue, Neville. I don't believe a word you say. From this time on, you are no longer a scientist of the tower; you have disgraced the brotherhood. To-morrow your cases will be dealt with properly. Until then——"

He took out a tiny whistle, blew on it. The sound pierced the silences of the underground, sent its impulses beating up the sound tubes to all the dormitories of the mid-belt.

Hugh took a step forward, put out an imploring hand. "You are destroying the tower."

Men rushed in; guards, weapons in hand, scientists, some half dressed. They came in increasing flood, ranged around the great room, curious, excited at the strange summons. On the outskirts Hugh noted Eric Mann in a sleep suit, licking his thick lips, and Atsu Mira, fully dressed, calmly impassive as ever.

Benton stilled the confused babel with a stern, imperious gesture. "Hugh Neville and Philippe Thibault are under arrest and stripped of association with the scientists. They have betrayed the high trust that was in them. Eric Mann, you will take immediate control of the board, until I can arrange for trustworthy relief."

Mann came forward respectfully, his face twitching. "What have they done?" he asked hoarsely.

"They attempted communication with Midcentral at Tower No. 2."

A low growl of horror swept the massed scientists. It was the unforgivable sin.

Guards sprang to either side of the prisoners. Hugh held his head high, though despair seethed within. Just when it was most necessary that he have a free hand, he was to be confined, disgraced.

As they were led through former comrades who now shrank away from contaminating contact, Hugh caught sight of Atsu. That worthy's eye dropped in a significant wink.

DALZELL, commander of the Midcentral forces in the Pacific Tower, stared at the board where the signal lens from Tower No. 1 had twice flashed, and twice been abruptly cut off. His bulldog face was screwed into puzzled inquiry. First, there had been a purported message from one Eric Mann, cryptic, mysteriously cut off. He knew him only by name. Then, more disturbing, the voice, or a good imitation, of Atsu Mira. But Atsu never used his name; invariably it was his code symbol, K-4.

What did it mean? His black brows grew blacker. One thing only; that Tower No. 1 was suspicious and was fishing for more definite facts to justify their suspicions. Atsu might not be able to perform as he had promised.

Dalzell was accustomed to swift decisions. "Hellwig!" he barked.

The colonel clicked heels and saluted. "Highness!"

"The stratosphere fleet leaves in thirty minutes. Fully equipped, all weapons. We attack Tower No. 1 on arrival. Atsu may still find means to help us from inside."

"Your highness' will is done."

"Another thing, Hellwig: Leave orders concerning Jellicoe's capture on his arrival. He is to be held for my return."

ERIC MANN burned with a dry fever. His eyes glittered behind his glasses; he licked his lips continuously. He was alone again in the communications room. His head still ached from

the strange arrest of Neville and Thibault; he felt fearfully that somehow it affected him.

It was too late now to withdraw; he must go through with it. Yet even the tempting vision of power and fortune that had been skillfully dangled before his eyes no longer was the driving motive. It was fear—fear of impending discovery that hounded him on to further treachery.

This time he locked the door before he signaled. The light showed contact.

"Chancellor!" he whispered, even though the silence unit was functioning. "It's Eric Mann."

"Well?"

"Things have happened here. I can't explain now, but you must accelerate your plans. To-morrow will be too late. I may not be on duty. You must attack at once."

The chancellor was also a man of instant decisions. He sensed the urgent terror in the traitor's voice.

"The fleet leaves in thirty minutes. Remember what you have to do. And, Eric—if you perform your part well, I shall double my previous offer."

VI.

HUGH NEVILLE paced feverishly up and down the narrow limits of his cell. Thibault had been placed separately. Hugh's thoughts were whirling. Something was brewing, of that he was sure, and he was helpless. Yet who was the traitor within the gates? If Atsu was honest, then it must be Eric; if Eric was blameless, then it must be Atsu. A vicious circle without a ray of light. Excepting only one: The reason why the calls to the other tower had failed. The informant assuredly had a code name of identification, and of course he had not used it. The only result was that Midcentral was now on guard.

He did not sleep, but kept on pacing. He glanced at his time signal. It was almost four in the morning. What was happening outside? The walls of his cell were impenetrable.

He stopped suddenly. Something was scratching faintly. He listened. The noise continued. Then the slide door disappeared smoothly into its recess. A man stepped through.

"Atsu!" he exclaimed.

The yellow man's finger was at his lips warningly. "No noise, please. So sorry what happened. But dared not interfere. Waited my chance. Now follow me."

"But how did you unseal the door? It has a photo-electric circuit, which only Benton's image will break."

Atsu grinned. "I find that out. So I take liberty to invade honorable scientist's room in his absence and discover a stereo-image of him. I enlarge in stereo room to proper proportions and hold honorable image before cell. Foolish cell don't see difference."

They had already glided out of the punishment chamber, were making their stealthy way to the elevator. No one was in sight. Hugh's muscles were tensed for impending action. He felt ashamed of his former suspicions of the yellow man.

"Thanks!" he said simply. "What has been happening?"

They were dropping with tremendous velocity to the lowest level.

Atsu said earnestly: "I try again to listen to Eric Mann. But impossible. He lock door. You know—I think——"

"What?"

"That he know what is called game is up. That you suspect; that you soon convince honorable chief. So he signal Midcentral to come with fleet, and he let them in."

Which was a shrewd guess, except that Mira knew it was Northcontinent to whom Mann had sold out. He did not want that to happen. It would smash Midcentral's dream of conquest

if the rival nation controlled the tower. What he did not know, however, was that Hugh had spoken to Dalzell, using Mira's name, and that Dalzell, worried, was even now speeding with a great fleet to the attack.

Hugh thrust his jaw forward. "We'll put a stop to that idea," he declared grimly.

They threaded their way carefully to the dim underground. The scientists had gone back to their duties, or to bed, disturbed at the seeming treachery of two of their comrades.

Hugh tried the door carefully. It was locked, from the inside. He knocked commandingly.

Nothing could be heard through the soundproof door.

Then it slid open, and Eric stood there, confused, stammering. "I—I was afraid of more trouble, sir, so I just——"

He saw then the grim features of the man who was supposed to be safe in the detention cell and sprang back. He opened his mouth to yell.

Hugh moved with the swiftness of a pouncing panther. One long arm shot out to catch him in a strangling neck hold, the other clamped firmly over the parted lips. The sound died down to a gurgling gasp.

Atsu Mira glided sinuously into the room, catfooted for the board.

"Wait!" Neville twisted his victim in front, propelled him across to the chair. "Lock the door first. We have a long job on our hands."

Atsu paused, turned back. It wouldn't do to arouse suspicions now. He must act circumspectly and with care.

ERIC was like putty in Hugh's powerful hands. He fell like a lifeless sack into the chair in front of the board. His face was blue with congestion, and his breath came stertorously under Neville's strangling grip. Hugh relaxed a trifle.

Eric put his hand gingerly to his bruised and lacerated throat. His eyes were wide with fear, but he said nothing.

Atsu had come back and was staring down at him blandly.

"Now!" Hugh said with deadly intonation. "It is our turn, Eric. You will talk and talk fast."

"I don't know what you mean."

Atsu interrupted smoothly. "Why bother with traitor? We know he communicated with enemy; we know he tell them come; he betray tower to them."

Eric stammered: "No—no! It's a—a lie; I didn't!" His voice rose to a scream. He was pitiable.

Atsu went on relentlessly: "I myself stand in open door, see you call enemy station. You have silence unit in operation."

Eric stared at his accuser with frightened gaze. He opened his mouth to deny it, met the yellow man's mocking eyes, and choked off into inaudible mouthings.

"You see, friend Neville, how it is? Let us waste no time on this scoundrel. Let us kill him, as he deserves."

The wretched man slumped to his knees. He was frantic with terror. "Mercy!" he implored. "Let me live. I will tell you everything. It is true I——"

Hugh caught the swift movement of Atsu's hand. He swiveled, leaped for the driving steel. A quick jerking twist and the long, keen-bladed knife went thudding to the floor. The yellow man ground out an unintelligible oath and rocked back on his heels, nursing a sprained wrist.

"None of that!" Hugh said sharply. "What the devil do you mean by trying cold-blooded murder?"

Atsu wiped his face of all emotion. "So sorry," he said blandly. "But righteous anger swept me away."

Hugh swung back on the cowering wretch. "Let's have it."

The words tumbled eagerly: "It happened yesterday. He contacted me, when I was alone. He made dazzling offers if I would open the tower to his forces. He promised that no harm would come to any one. In a moment of folly I yielded. But during the night, my conscience bothered me. I determined to back out, not to do it. When Benton's whistle called, and you were arrested, I felt that you knew something, and I became so frightened, I—I didn't know what I was doing. I called him, and—and the fleet is on its way. When I get the code signal, I'm to open the ports at all altitudes."

Hugh gripped the still kneeling man's arm with a fierce grip. "The attack will take place when?"

"In thirty minutes."

Hugh flung him away. "Midcentral knew how to pick its dupes."

Eric sprawled against the desk. He lifted his bruised head. "Midcentral?" he echoed blankly. "I had nothing to do with Midcentral. It was the chancellor of Northcontinent who spoke to me. It was because Midcentral was in control of Tower No. 2 that I agreed. I felt they would force each other to a quick peace."

Hugh swerved on Atsu, but the yellow man forestalled him.

"So sorry," he said. "I must have mistaken the signal lenses. But difference, if any, unimportant. Must keep enemy out. One nation bad as another."

"Of course," Hugh agreed readily.

But his glance flicked over the board. The signal lenses of the Pacific Tower and of Northcontinent's station were at opposite ends. He said nothing, however, and sprang to the controls.

He checked the signals with speed and efficiency. All the ports were closed. Eric lay on the floor where he had fallen, holding his head in his hands, groaning. Atsu hovered to one side, bland, inscrutable. He had wriggled nicely out of that. Let Neville pull the chestnuts out of the fire and burn his fingers in doing it. Then he, Atsu Mira, would act, even as he had done at Tower No. 2.

HUGH switched on the observation-rim telescopes, contacted them in slowly revolving series with a special visor screen. It was already dawn in the high stratosphere.

Far off, to the northwest, at the extreme limit of visibility, a cloud of black specks seemed moveless in the lower stratosphere.

Eric had told the truth. Northcontinent was hurtling to the attack.

Hugh swore fiercely. Atsu leaned forward with masked eagerness. At the same time he edged toward the fallen, forgotten knife. His plan was clear. Kill the two men in the room, wreck the communications board. Then to the key centers of the tower, to smash the delicate actuating apparatus. He would find them, he was sure.

He bent over to flick something off his shoe. When he arose, the knife was hidden in his wide-flaring sleeve. He moved on stealthy feet toward the unsuspecting scientist. He was almost behind his victim. Eric was sobbing quietly in the corner, still crumpled together.

Hugh reached over and threw a switch. The ravaged features of Christopher Benton turned full from the screen. He had not slept. His face twitched as he saw the occupants of the communications room.

Atsu snarled to himself, retreated a step. What did the fool mean by this?

The chief scientist jumped to his feet. His hand reached for the whistle hanging on a chain from his neck.

"Benton, don't touch that whistle," Hugh said rapidly. "Now I can explain. We have been betrayed—by Eric.

The fleet of Northcontinent is almost at the tower. Look at the other screen."

Benton's hand clutched the whistle, stayed. His eyes went to the visioned screen, saw the dots. They were larger now. His eyes came back.

"You broke from your cell. You had confederates outside, then. Ah, Atsu Mira! I understand now. You've gained control of the board somehow, and you boast to me. You dare call Eric the traitor, but you——"

"Eric Mann, lift your head," Hugh interrupted. "Tell him the truth."

The miserable scientist raised himself on one arm, looked with shame-swept eyes at his chief, and said in a low voice: "It was I who betrayed you." Then he let his head fall again.

Benton staggered slightly, shocked, bewildered. Yet strangely there was a flicker of relief, of joy even.

"Hugh! I don't understand."

"We have no time. The fleet is approaching. Make sure all ports, the rim, the machinery, are manned by trustworthy men. There may be more backsliders in the ranks."

The chief scientist pulled himself together. His whistle shrilled. The sound vibrated through every nook and cranny of the vast tower, carried through the cunningly constructed sound tubes. Even in the communications room it blasted its warning.

Men sprang from sleep, darted into the corridors, confused, querying. It was the second summons of a thrill-packed night.

Hugh's eyes flicked back to the televisor screen. The automatic rotation of the telescopes had clicked past the northern view, and swept now over the southeastern area. Water foamed at the bottom of the screen, but high above, coming swiftly over the Red Sea, was another fleet, great, grim, battle planes!

"Midcentral!" he cried.

Red swastikas emblazoned the under wings. The truth flamed through him and he turned sharply. He was not fast enough. Atsu struck.

The blade, poised for the broad of his back, sliced through the left shoulder, crunched against bone. Hugh fell backward, hitting his head against the hard floor. The blood pulsed from the wound, dripped down his side. He was motionless, eyes wide-staring.

Atsu balanced a moment, watching Eric. But the erstwhile communications chief was still sprawled as he had been flung, moaning softly. With a contemptuous gesture, the yellow man switched on the direction finder, sent a tight beam hurtling toward the approaching planes on the southeastern visor screen.

"Stillwig!" The code word.

"K-4! In complete control of tower, excellency."

"Splendid! Open ports for our entrance."

"Not yet. Northcontinent's fleet is moving on the tower from the northwest. Your paths intersect in five minutes."

There was silence. Then: "Can you turn off the power? The enemy fleet will crash."

"And you?"

"We're riding the beam from Tower No. 2."

"So sorry, excellency. The scientists are on guard. The key positions are protected. I dare not stir from the communications room."

"Very well. We shall fight it out then. We have the larger fleet. As soon as Northcontinent crashes, open the ports."

"Yes, excellency."

Atsu snapped off all connections except the tight beam and the telescopic screen. But not before the mid-belt lens had flared, and Benton's startled features flashed on the local screen. Then they were gone.

ATSU sputtered strange crackling syllables and catfooted to the door. He did not know whether the chief scientist had seen the bloody, motionless body of his assistant on the floor or not, but he was taking no chances. He sealed the entrance, connected wires with rapid, skillful fingers. One hundred thousand volts hurtled deadly power through the conductive element. He was safe against violent invasion.

He padded softly back to the board. Hugh was motionless, seemingly dead. The pool of blood had widened. His face was white and set. Eric, unstirring from his position, had stopped sobbing. He seemed drugged, unconscious.

Atsu watched the screen, fascinated. The two great fleets had seen each other, swung sharply around. Two thousand planes against fifteen hundred, glinting in the high sun, ten miles above the blazing desert, rushing toward each other at five hundred miles an hour.

They met in a cataclysmic smash. Great bombers sliced through each other as if tough alloys were so much putty, locked crazily together in a mad dance of destruction. Blinding flame slashed through the shrieking stratosphere, enveloped and crisped everything in its path to little fluttering motes of dust. Disruptors swallowed whole squadrons in hellish cones, wiped men and metals clean out of existence. And everywhere the Dongan pellets clung to doomed ships, burning, eating away, until, meteorlike, they plunged to earth.

Ten miles of air, saturated with débris of destruction, raining ghastly dew on hot, thirsty sands. The thin squeak of battle poured through the sound amplifiers. The rarefied air was not conducive to full-throated roars.

Atsu watched patiently. The sight of battle, the holocaust of men, the crisping of agonized bodies, did not disturb his expressionless features. He had no doubt of the outcome.

It was over in half an hour. Northcontinent's fleet littered the burning terrain far below. Forty thousand men went with it. Midcentral rode the beams, shattered, torn, but victorious. They had suffered greatly, too; half their fleet was inextricably intertwined with the débris of the enemy, but Dalzell did not care. Tower No. 1 lay at his mercy. Once inside, the entire world must bow to his terms, or be wiped out of existence. He signaled the tower.

VII.

ATSU reached for the switches that controlled the entrance ports of the midbelt. Nothing could stop them now. The signals from the executive rooms flared steadily, but he ignored them. Benton was frantically trying to establish communication. Outside the soundproofed door there must be the wildest excitement. Something battered against the barrier and was followed by silence. Atsu could envision the sizzling, electrocuted bodies of the attackers.

His hand was on the switch when he heard a moan. He swung around. Hugh Neville, head gory with his own blood, was raising himself with infinite effort. Atsu made a gesture of annoyance. When he killed a man, it was indecent for his victim to come back to life again. He plucked at his knife. This time there would be no further resuscitation.

He bent over, the keen blade pointing. Hugh saw the evil-glittering blade, raised a weak hand to fend it off. The knife descended.

Atsu Mira had forgotten Eric Mann, or, rather, the traitorous scientist had lain in seeming stupor so long that he felt safe in disregarding him. To put the final quietus to Neville, he perforce turned his back on Eric.

Now Eric had at first been so overwhelmed with the consciousness of guilt and the dreary rayless prospect before him that in truth he was as one dead. But the surprising treason of Atsu, akin

to his own and yet so dissimilar, stirred comatose brain cells into renewed activity. His own life was forfeit, yet he was repentant. Midcentral was the country of his birth; Northcontinent had seduced him with false blandishments; and he hated both now with a consuming hatred. Once more he was a scientist, though an outcast.

His brain was busy, but he held his limbs rigid, waiting. The opportunity came as Atsu bent over Hugh. He scrambled to his knees, flung himself in a headlong sprawling dive for the murderer. He hit the half-risen body of Hugh and knocked him crashing across the floor; his own hands clutching vainly for Atsu's legs.

The keen driven point, meant for Neville's throat, bit deep into Eric's chest, buried itself to the guard hilt. The yellow man snarled hideous curses and tugged at the buried blade. It jerked out, the red blood spurting like a geyster behind it.

Mira whirled and raised his knife again. But Hugh, unsteadily on his feet, pallid as a corpse, blood-smeared, wild-eyed, summoned his last reserves of strength. He lifted the metal chair, brought it down crashing. Atsu crumpled under the impact and slumped over the dead form of Eric Mann. His skull had crushed like so much thin cardboard.

Hugh leaned heavily against the board, grimacing with pain from the hurt in his shoulder, staring with half-glazed eyes at the shambles. A crash startled him, turned him slowly toward the door. It hung crazily ajar, and men were pouring in, Benton in the lead.

"We had to shut off the power to break in," the chief panted and stopped short. "For Heaven's sake what happened?"

Hugh swayed and grinned feebly. "There were two traitors," he explained. "Atsu was Midcentral's agent. He is dead now; so is Eric." He stared down at the sightless eyes of Northcontinent's dupe. "But Eric expiated his sin. He saved my life just now at the cost of his own. He was a true scientist, in spite of——" He sank limply into the chair. "The battle outside—what's happened?" The screen was blank; the power was dead.

"We don't know. All secondary screens were off. But Midcentral must be victorious. When we shut off the power, Northcontinent of course crashed."

Neville shook his head. "Bob Jellicoe took off last night for his own tower. He promised its capture and cessation of power by noon. It's after that now. Both fleets must be down."

Benton looked bewildered. "What have you been conspiring behind my back? However——"

"Turn on the power again; I want to see."

BENTON sent the crowded scientists hurrying back to their stations. Within two minutes power surged through the great tower. Almost at once the signal of the tight beam of communication with Midcentral's fleet glowed redly.

Dalzell's angry features glared at them from the screen. "What the devil, Atsu——" He stopped short, took in the scene with a rapid movement of his deep-set eyes.

"Atsu is dead," Benton said coldly.

Hugh looked at the screen unbelievingly. Northcontinent's fleet was gone, but Midcentral was still in the air. For one moment he forgot that Dalzell was listening.

"Then Jellicoe missed——" He paused abruptly, biting his lip. He had spoiled what last chance the other might have had. He had put Dalzell on guard.

The Midcentral commander seemed to read his thoughts and smiled with tight lips. "I knew all about Jellicoe. There was a reception committee waiting him. He is out of harm's way."

Benton said "We seem to have checkmated each other. You still have control of Tower No. 2. But your emissary failed here. The tower is impenetrable. Without us, your plans must fall."

Dalzell did not seem perturbed. "You think so? You are mistaken. Your tower is not impregnable."

"What nonsense is that?" Benton said angrily. "Your heaviest weapons cannot penetrate impermite."

"You are wrong. Jellicoe had been working on a process secretly. I found his plans and formulas in the tower. They were not as well hidden as he had thought. It is a simple method, and I was able to equip my fleet overnight. We bombard the stripped protons of your impermite walls with high-speed electrons. The electrons combine with the protons to form ordinary hydrogen gas." He smiled his tight-lipped smile. "It will be a humorous sight to watch your walls gradually evaporate, leaving you, so to speak, suspended in mid-air."

Benton said confidently: "It's a wild dream. You can't do it."

"Watch me," Dalzell retorted. He spoke into his broadcasting unit: "Proceed with attack according to plan. Squadron A, encircle at ceiling of flight. B, remain at ten-mile level; C, drop to five-mile altitude."

Like clockwork the maneuver was executed. Two hundred planes pointed their noses upward, zoomed with thin-roaring motors. At fourteen miles they wavered, pushed with all the force of their superchargers, wabbled, and flattened out. They had reached the ceiling.

Neville wiped the blood off his face. There was nothing he could do. He remembered the competent carriage of Jellicoe, and felt a sinking sensation in the pit of his stomach. If the method was his, it would work. Theoretically, it sounded feasible.

It was an awe-inspiring sight—the three levels of great circling planes swarming around the beleaguered tower, the red swastikas mocking at the helpless garrison.

Hugh swore bitterly. "Damn that fool council for relying entirely on impermite walls. If we had weapons now, we——"

"It won't work," Benton said stubbornly.

IN THE screen Dalzell pressed a button. He grinned out at them. A whining sound came through the amplifiers, rose quickly to an inaudible shriek. Blue jets streaked from the sides of the thousand planes, focused on the black walls of the tower. The Midcentral commander bowed mockingly in his cabin and snapped off the communications switch. His features faded. He had shown the mice with whom he was playing enough. Thereafter the inmates of the tower saw only through the revolving telescopes.

The blue streams smashed into the resistant walls, spread over their surface until the entire structure seemed a haze of shimmering blue fire. Benton and Neville watched anxiously. Nothing happened; the walls glowed and remained intact.

Benton chortled his relief. In spite of his seeming confidence he had been more shaken than he had cared to admit. "Just as I thought. A futile gesture."

Hugh's features were pinched with pain and the desperateness of their situation. "It takes time," he said with effort. "The protons are packed tightly; the electron streams are diffused. The surface will slough off into hydrogen atoms almost imperceptibly."

Benton was taken aback. "There's something in that." His jaw set. "We'll find out fast enough."

He stalked to the other end of the room where a small machine was welded to the wall. It sent an electrical impulse beating through the impermite to

the outer surface, from which it rebounded inward again. The distance traveled was measured by a swinging pointer. Differences in length of less than a millimicron were easily perceptible.

The chief scientist switched it on. The needle traveled smoothly to the three-quarter mark and stopped. Then, very slowly, it began to retreat—a slow, inexorable retreat. Every black line it passed meant one millimicron shaved off. The impermite wall was gradually lessening in thickness.

The two men looked at each other blankly. It would take hours, but eventually the impermite would completely dissipate into hydrogen.

They went to work with quiet desperateness, trying every method to stave off the inevitable. There was no thought of surrender, even though the tower vanished in thin smoke around them.

The tradition of the scientists was at stake.

Every quarter hour Dalzell established communication, asked sardonically: "Ready to surrender?"

The answer was always the same: "We'll see you in hell first!"

STILL the ceaseless evaporation continued. The electrons, sucked out of the ionized stratosphere, beat in constant sparkling blaze against the impermite. The hydrogen gas ignited and sheeted around the walls in explosive bursts. Steam spread out in great clouds; it rained down on the bottomless desert below for the first time in hundreds of years.

Benton sent broadcast appeals to every nation in the world. It was their fight as well as the scientists'. In many cases there was no response; in others, though the language was different, the purport was the same. "We'd be glad to help, but Nation X—or Y or Z, as the case might be—is invading our territories. We need all our forces for defense."

"Blind fools!" said Benton with more bitterness than he had ever displayed. "Don't they realize that if the tower goes, they're all through? Their fleets will crash, their arms be so much metallic junk, and their peoples will starve. Yet they refuse to forget their idiotic jealousies and come to our rescue."

"Those are the people we've slaved for all our lives," Hugh retorted.

He had worked like a demon, in spite of wounds and loss of blood. He set up a defensive screen; the electrons went through it with the greatest of ease. He diverted all the vast power of the tower to repel the electron streams with circling waves. This helped somewhat, but the speed of the hurtling elementary projectiles was such that a goodly percentage forced their way past the barrier. The inevitable process was only retarded. And the thought of the incalculable damage to the outside world by the stoppage of power at last induced him to send it back into the normal channels.

The walls were becoming dangerously thin now.

Benton threw up his hands. "What now?" he asked quietly.

"I don't know," Neville returned just as quietly. "We're at the end of our rope. In another few minutes what is left of the walls will be insufficient to stand the strain. The six miles of tower above the ceiling of the Midcentral planes has retained its normal weight and will smash down through the weakened sections like so much tissue."

Benton drew himself proudly erect. "Very well! We'll die in the ruins rather than prove recreant to our trust."

Noble sentiments, Hugh thought. If only Bob Jellicoe had been successful! But of course he had been captured, was dead probably by now. Well, in a few minutes it wouldn't matter; they'd all be dead.

MOVED by some obscure instinct, Hugh knifed the switch under the signal lens of the far-off tower.

No answering signal! Why should there be? Midcentral's men would refuse to answer. Nevertheless, more or less mechanically, he sent out the call of distress, over and over. Still no answer. He switched off; he was making himself a laughingstock to their operators.

A great shout burst from Benton. His eyes glued to the screen. Hugh followed his gaze.

The blue flame was gone; the huge planes were plunging downward, erratically, with little convulsive jerks as white-faced, staring pilots tried to level off, faster and faster, as they neared the upward rushing earth, until, with a roar and a smothering geyser of sand, they plowed through the twisted remnants of the once mighty Northcontinent fleet.

When the billowing haze had settled, the desert was a mass of wreckage, in which deadly rivals mingled peacefully together in one final unmoving heap.

Benton's tones were awed: "Something happened to their power."

It was Hugh who saw the signal lens of Tower No. 2. He sprang to the board, threw in the switch.

Bob Jellicoe appeared on the screen, disheveled, clothes half ripped off him, left arm limp. Behind him crowded the figures of scientists. On the floor were sprawled bodies.

"You all right?" Bob demanded anxiously.

"Swell!" Hugh answered.

"How about Dalzell? I shut off the power for only two minutes."

"Crashed!"

"Good!" A cheerful grin lighted up his battered countenance. "We just got through mopping up. It took some time before I could find means to communicate with my comrades and for them to release me. Then came the big fight. We were still at it when your distress call came through."

"You couldn't have come to the rescue in better time," Hugh assured him fervently.

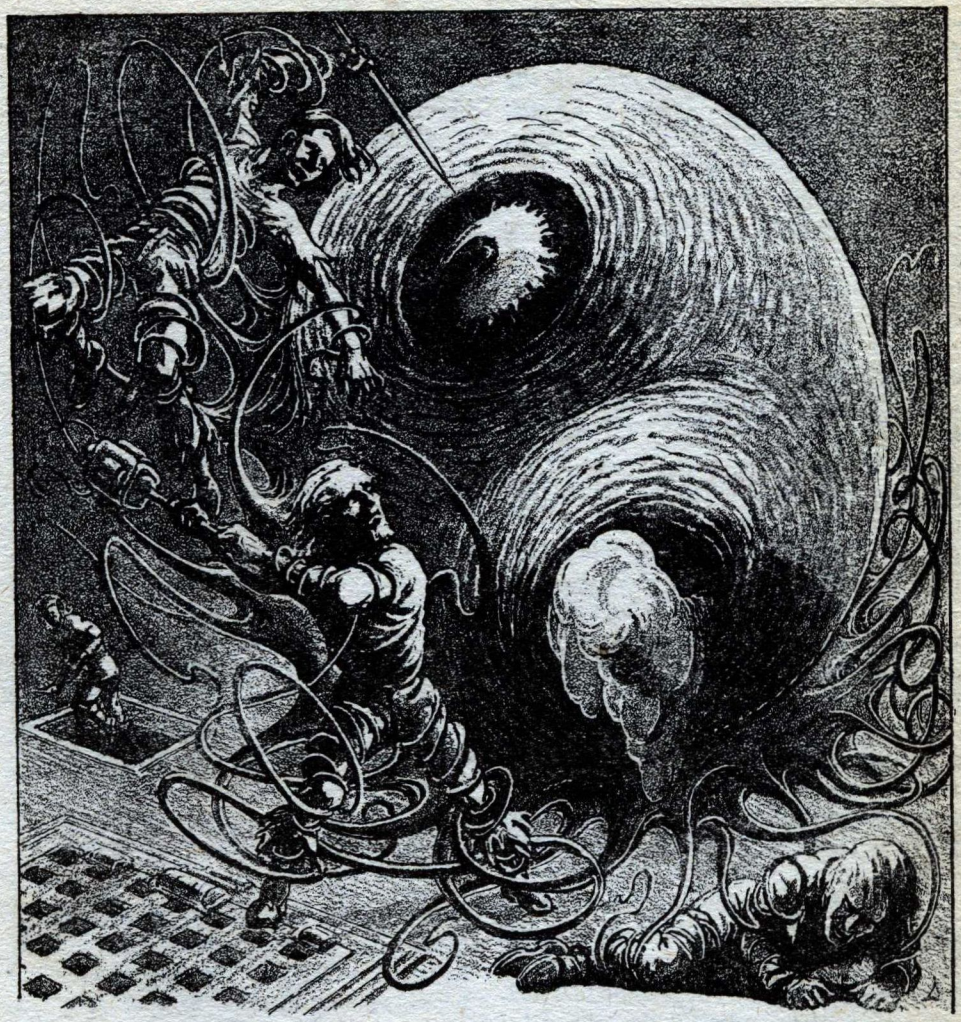
Benton went grimly to the board, switched on every station in the world, row on row of them.

"What are you going to do?" Neville asked curiously.

"Do?" The chief scientist snorted. "Lay down the law to the nations. Tell them that hereafter the scientists are going to do the ruling. I'm tired of the way in which they've run things."

"And if they refuse to obey?" Hugh said softly.

Benton laughed harshly. "I'll turn off every ounce of power. So will Jellicoe out there. That will bring them to their knees in a hurry."



The Legion of Space

Part Five of the great novel

by Jack Williamson

UP TO NOW:

In the thirtieth century, John Star—then John Ulnar—receives his commission in the legion of space, with orders to join the guard of Aladoree Anthar, a lovely, mysterious girl, keeper of AKKA—the secret weapon of humanity, so terrific that its plans are intrusted to only one person in the system.

For two hundred years AKKA has protected the democratic Green Hall Council from the "Purples," who plot to

restore the old empire, with the despotic family of Ulnar on the throne.

Adam Ulnar, wealthy leader of the Purples and now commander of the legion, has sent his nephew, Eric Ulnar, claimant of the throne, to the star Yarkand, where he made an alliance with the weird, monstrous, but highly scientific Medusae, to help him crush the Green Hall, promising them iron, precious to them.

Aided by the Medusae, Eric Ulnar abducts Aladoree, to deprive the Green Hall of AKKA. John Star, with three legionnaires, Jay Kalam, Hal Samdu, and Giles Habibula, captures the "Purple Dream," space cruiser of the traitorous commander, and follows to the gigantic planet of Yarkand, where the crippled ship plunges in an ocean.

The Medusae, they learn, have tricked the Purples, planning to migrate to the system, from their dying sun, wiping out humanity.

Leaving Adam Ulnar aboard the wrecked ship, the four get ashore, reach the colossal, unearthly black city of the Medusae. Entering through an aqueduct, they are captured, imprisoned with Eric Ulnar.

"They're murdering mankind!" screams Eric. "Bombing the planets with a deadly red gas. And making me torture Aladoree! They want AKKA. They won't let me die till she tells. But when she tells, they will kill us all!"

They must rescue the girl to save the human race.

XXI.

"MY BLESSED bottle of wine!" sobbed Giles Habibula plaintively. "I carried it out of the sunken cruiser. I carried it through the jungle of thorns. I carried it up the mortal black mountains. For precious months I carried it on the raft. I risked my mortal life to save it, fighting a blessed flying monster. I dived for it into the horrors of the yellow river. I was near drowning with it in the fall beneath that precious aqueduct!

"The only bottle of wine on the whole black continent!"

His fishy eyes clouded, and the clouds gave forth to a rain of tears. He sank down on the bare metal floor of the cell in a stricken heap.

"Poor old Giles Habibula, lonely, desolate, forlorn old soldier of the legion. Accused for a pirate, hunted like a rat out of his own native system, caught like a rat in a mortal trap to be tortured and murdered by the monsters of an alien star!

"And, ah, me, even that is not enough! I'd carried that bottle through a mortal lot of hardship and peril. I'd held it up to the light, many a time, life knows, my old mouth watering. Always I'd saved it for the hour of greater need. Ah, yes, for such a time of mortal bleak necessity as faces us now!

"And it must fall! Fall two thousand feet. Every mortal drop of it. Gone! Ah, Giles Habibula——"

His voice was overcome by cataclysmic grief, earthquakes of sighs and storms of tears.

John Star questioned Eric Ulnar again. He had slept, his haggard, emaciated body exhausted by the outburst of hysteria. He was calm when he woke, sunk in a sort of apathy, speaking in a dull, weary tone.

"The Medusae are anxious to desert this planet," he said. "It's old, its natural resources exhausted. The long, bitter nights are always more severe. And it is spiraling back toward its dying sun; sometime it will crash into it."

"They already have an outpost in the system, you say?"

"Yes," continued the lifeless monotone. "They've already conquered the Moon of Earth. They've filled its atmosphere with the deadly red gas, wiped out the human colonists, built a great fortress of this black, synthetic metal."

"But the legion! Surely——"

"The legion of space is destroyed. The last, disorganized remnant of it was annihilated in a vain attack on the Moon. The Green Hall, too, is gone. The system has no organization, no defense.

"And the Medusae, from the fort on the Moon, are proceeding with the destruction of the human race. They're firing great shells, filled with the red gas, at Earth and the other planets and satellites. Slowly, in every atmosphere, the concentration of the gas is increasing. Soon men everywhere will be dying of insanity and the green, leprous wasting away of their bodies.

"Only a few of the Medusae, comparatively, have already gone to the system. But their great fleet is now being organized and equipped, to carry the migrating hordes that will occupy our planets as the human race is destroyed."

There had been a vast change in Eric Ulnar's manner. On the first occasion, his voice had been a thin, hysterical scream. Now his dull tones were barely audible. His face—it still had a sort of pallid beauty from his long yellow hair, worn, haggard, pain-drawn as it was—his face was vacantly calm. He spoke of the plans of the Medusae with an unconcern that was almost mechanical, as if the fate of the system no longer interested him.

"And Aladoree?" John Star demanded. "Where is she?"

"She is locked in the next cell, beside us, under the floor of the hall above."

"You say she's been"—he could not keep a little sob of pain and anger from his voice, "been—tortured?"

"The Medusae want to know her secret," came the lifeless, expressionless reply. "They want the plans for AKKA. Since they can't communicate with her themselves—she doesn't know the code—they made me try to get the secret for them. But she won't tell.

"We've used different means," he droned on. "Fatigue, hypnotism, pain. But she won't tell."

"You——" choked Hal Samdu. "You—beast—coward——"

He charged across the cell, great hands clenching savagely. Eric Ulnar shrank from him, shuddering, cried out:

"Don't! Don't let him touch me! They tortured me! I couldn't stand it! They tortured me! And they wouldn't let me die!"

"Hal!" protested Jay Kalam gravely. "That won't help things a bit. We need to know what he can tell us."

"But he—" gasped the giant, "he—tortured Aladoree!"

"I know," soothed John Star, holding his arm, though he shared the savage impulse to destroy this abject human object. "What he tells us will help to rescue her."

He turned back to Eric Ulnar.

"In the next cell, you say. Is there a guard?"

"Don't let him touch me," came the whining response. "Yes, one of the Medusae always watches in the hall."

"If we could get past the guard, is there any way out?"

"Out of the city, you mean?"

"Yes," Jay Kalam spoke up. "We're going to rescue Aladoree. We're going to take her outside the city and let her set up her weapon. Then the Medusae will come to us for orders—unless we decide to destroy the whole city out of hand."

"No, you could never get out of the city," returned the dull voice. "You can't even leave the hall. It opens over a pit a mile deep. Just a sheer, blank wall below the door. Even if you got down, you'd have no way to cross the city. The Medusae have no streets; they fly.

"But there's no use, even to talk of that. You can't even get out of this cell, or get Aladoree out of hers. The sliding doors are locked. You are unarmed prisoners. Talking of stealing some-

thing the Medusae are guarding in their securest fortress!"

His voice died in dull contempt.

WITH SOMETHING of the impatience of a trapped animal, John Star gazed about the cell—a bare metal chamber, square, twenty feet wide. Ten feet overhead was the rectangular opening through which they had been dropped, closed with a sliding grille of square metal bars. Green light filtered through the bars from the hall above. His eyes, searching for some weapon or tool to aid their escape, found no movable thing in the cell. It was simply a square box of black metal.

Hal Samdu was pacing back and forth along the walls, his eyes roving like those of a caged beast, sometimes casting a glance of savage rage at Eric Ulnar.

"You can't get out of this cell, even," insisted the same dead voice. "The Medusae will kill you. They will soon be coming back to make me try again to get the plans from Aladoree. She will tell, this time. They are preparing a ray that burns like fire, and yet will not kill her too soon. But they will kill us all when she tells."

"Then," John Star muttered fiercely, "we *must* get out!"

Hal Samdu beat with his fists on the metal walls. They gave out a dull, heavy reverberation, a melancholy roll of doom; he left blood from his knuckles.

"You can't get out," droned Eric. "The lock——"

"One of us has a certain dexterity," said Jay Kalam. "Giles, you must open the door."

Giles Habibula got to his feet in the corner of the cell, wiping the tears from his fishy eyes.

"Ah, yes," he wheezed in a brighter tone. "One of us has a certain slight dexterity. It came of the accident that his father was an inventor of locks. Even so, it cost him a mortal lot of toil, to develop an aptitude into a skill.

"A mortal dexterity! Life knows, it has never been given the credit it has earned. Ah, me! Lesser men have won riches and honor and fame with half the genius and a tenth the toil. And to old Giles Habibula his talent and his unremitting effort have brought only poverty and obscurity and disgrace!

"Mortal me! But for that dexterity, I should never have been here, rotting in the hands of a lot of bloody monsters, waiting for torture and death! Ah, no! But for that affair on Venus, twenty years ago, I should never have been in the legion. And 'twas that dexterity that tempted me then—that, and the fame of a certain cellar of wine!

"Poor old Giles, brought by his own genius to ruin and starvation and death and——"

"But now's the chance to make your skill undo all that," urged John Star. "Can you open the lock?"

"Ah, me, lad! The penalty of unjust obscurity! If I had been a painter, a poet, a blessed musician, you would never dare cast doubt upon the mortal power of my art. With my genius, it would be known from end to end of the system. Ah, me, it was an ill tide of destiny into which I was cast!

"That even you, lad, should doubt my genius!"

Great tears trickled down his nose.

"Come, Giles!" cried Jay Kalam. "Show him."

The three of them lifted Giles Habibula—an easier task than it would once have been—so he could reach the barred grating, ten feet above the floor.

He looked at the black case of the lock, fingered it with his oddly sure, oddly delicate hands. He set his ear against the case, tapped it with his fingers, reached up through the bars and moved something, listening.

"My mortal eyes!" he at last sighed plaintively. "I never saw such a blessed

lock as this. Combination. The case is precious tight. No place to insert an instrument, to feel it out. And the thing has levers, instead of cylinders. Never was a lock like this in the system!"

Again he listened intently to little clickings from the lock, resting the tips of sensitive fingers against the case, now here, now there, as if vibration revealed the inner mechanism.

"Bless my poor old bones!" he muttered once. "A mortal new idea, here! If we were back in the system, the patents on it would earn me the fame and wealth I've been cheated of. A lock that challenges even the genius of Giles Habibula!"

Abruptly he gasped, stooping.

"Let me down! A fearful creature, coming!"

They lowered him to the floor. And a huge greenish hemisphere floated over the grating. A gross mass of glistening, slimy, translucent flesh, palpitating with strange, slow life. An immense, ovoid eye stared at them, so unearthly, so horribly fascinating, that John Star felt it must be reading their very minds.

A dark tentacle dropped four little brown bricks through the grating. Eric Ulnar, breaking from his apathy, snatched one of them, gnawed it eagerly.

"Food," he said. "This is all they give us."

A cube of dark, moist jelly, John Star found one of them to be, picking it up to taste it, with an odd, unpleasant odor, an insipid lack of flavor.

"Food!" wept Giles Habibula, biting into another. "Mortal me, if they call this food, I'll eat my blessed boots first, as I did in the prison on Mars!"

"But we must eat it," said Jay Kalam. "Even if it isn't palatable. We shall need strength."

The Medusa presently floated away from above the grating; they lifted Giles Habibula, to resume his battle with the lock.

He muttered under his voice from time to time; his breath, in the absorption of his effort, became slow and panting. Sweat stood out on his face, glistening in the green light that shone through the bars.

There was, at last, a louder click. He sighed and raised his face against the bars. Then shook his head, whispered:

"Let me down."

"You can't open it?" asked John Star anxiously.

"Ah, lad, so still you doubt?" he breathed sadly. "The blessed price a man must pay for a mortal spark of genius! There was never a lock designed that Giles Habibula couldn't open. Though many a locksmith has tried, life knows!"

"Then it *is* open?"

"Ah, yes! The bolts just went back. The blessed door is unlocked. But I didn't open it."

"Why?"

"Because the mortal monster is waiting up there in the hall. Hanging still over a blessed queer contraption on a tripod of black metal. Its purple eyes would see any move."

"Tripod?" shrilled Eric Ulnar, voice edged with the panic of hysteria. "Tripod? That's the machine they use for communication with me. They've brought it again, to make me get the secret from Aladoree. They'll kill us all when she tells!"

XXII.

"LIFT ME," said John Star, and Hal Samdu's great hands swung him up.

Through the square metal bars of the grating, he could see the walls and ceiling of the vast hall, twenty feet wide, twice that in height, made all of the dead-black metal and illuminated by little green, shining spheres strung along the middle of the ceiling.

The Medusa was in view, hanging over the cell and a little to one side. A bulging, fifteen-foot hemisphere of greenish flesh, slimy, half transparent,

throbbing. Ovoid, foot-long purple eyes, protruding a little, rimmed with ragged black membranes—hypnotic eyes of evil enigma. Scores of black tentacles hanging from the edge of the hemisphere, motionless, lifeless.

Beside it was the tripod mechanism. Three heavy, spike-pointed legs of black metal, supporting a little cabinet, from which hung cables fastened to little objects that must have been electrodes and transmitter, for picking up Eric's voice and the strange etheric emanations of the Medusae.

At a sign, the giant lowered him.

"There's a chance," he whispered. "If there are no others in sight—and if we can be quick enough."

He told what he had seen, outlined his plan. Jay Kalam nodded, grave approval. In quick, breathless whispers, they discussed the details, down to the smallest movement.

Then Jay Kalam gave the word, and Hal Samdu swung John Star up again. This time he seized the grating, slid it swiftly and noiselessly back, in a moment was on his feet in the hall above. Without the loss of an instant he leaped toward the tripod.

Jay Kalam meanwhile came through the opening after him, catapulted by the arms of the giant, and helped Hal Samdu to follow.

But an instant after the grating had opened, the three stood beside the opening, working with savage haste to dismember the tripod. Even so the guarding Medusa had already moved. The green dome of it swept swiftly toward them, thin black appendages whipping out like angry snakes.

Hal Samdu wrenched apart the mechanism. One heavy, sharp-pointed leg he thrust to John Star, another to Jay Kalam. The third, with the heavy black case still fastened to it, he brandished like a great mace.

Holding the pointed leg like a pike, John Star lunged at a purple eye.

Instinctive terror smote him, the same strangely numbing fear that had struck him twice before from the luminous eyes of the Medusae, the touching off of an age-old response to elemental horror. He felt tingling chills where hair sought to rise, ice of sudden sweat, abrupt pause of heart and breath, disconcerting stiffening of his muscles.

Immobility of instinctive terror—inheritance from some primeval progenitor, that had found safety in keeping quiet. Useful, perhaps, to a creature too small to do battle and too slow to run away. But now—deadly!

He had known that it was coming. He had braced himself to meet it, as he had met other perils. He would be ruled by his brain, not by age-old instinct patterns!

A moment it checked him—just a moment. Then his numbed body responded to desperately urging nerves. He went on, metal point swinging up before him.

Yet the Medusa had taken full advantage of the small delay. The black whip of a tentacle, small as his finger, but cruelly hard, pitilessly strong, snapped around his neck, constricted with merciless, suffocating force.

In spite of it, he carried out the lunge. Fighting down the blinding agony from his throat, he completed, with every atom of weight and strength behind it, a forward rush, an upward swing.

The point reached the eye, ripped through its transparent outer coat, plunged deep into the sinister purple well of it, between the fringes of black membrane. A pendulous blob of clear jelly burst out, a quick rush of purple-black blood; and the great socket was sunken, sightless, hideous.

Abruptly increasing its fearful pressure on his larynx, the choking tentacle hurled him forward with a jerk that almost snapped vertebrae, flung him dazed and blind against the metal floor.

With a dogged will that ignored dan-

ger and physical pain, he clung to consciousness, clung to his weapon. Before he could see he was scrambling back to his feet, dimly aware of the blows of Hal Samdu's club—great soft thuds against boneless, palpitating flesh.

He got his sight back, saw the giant, head and shoulders towering from a very mass of tightening black appendages, gasping with agony and effort, muscles knotting terrifically as he swung the metal mace.

He saw Jay Kalam lunge, as he had lunged, drive his point deep into a purple eye. Saw him instantly wrapped in ferocious black whips, that squeezed his body and twisted it and flung it savagely against the black metal wall.

He was staggering forward again. Black ropes caught his knees, before he came in thrusting distance, tripped him. They snatched him aloft, with resistless strength, whirled him up to dash his head against the black floor.

A huge, malevolent purple eye came before him, as he was flung up—one of the two that remained to the creature. It was too far to reach with a lunge. But he threw his weapon, hurled it at the immense eye with a twisting swing of his whole body, a long sweep of his free arm.

It went deep, deep into the purple well. And the tentacles dropped him, to grasp it, tug at it.

On hands and knees he sprawled, beside Jay Kalam, who was still motionless, groaning, weapon at his side. John Star snatched it as he got to his feet, straightening fairly underneath the creature, surrounded by whipping, agonized appendages.

On the under surface of the huge hemisphere, a circle of soft green flesh, was a curious organ. A circular area, three feet wide, slightly bulging, that glowed with soft, golden iridescence. The light wavered, pulsed rhythmically, with the regular palpitations of the monstrous body.

With the quick intuition that it must be some vital part, he thrust at it.

SENSING his attack, the creature fought to avoid it. Hal Samdu, dazed, was flung down at his feet. Black tentacles cut at him. One whipped about his waist, tightened fiercely. The weapon that he had flung into the great eye, now grasped in thin tentacles, flailed at him, struck his head with a blinding burst of agony.

He drove on; his point pierced the golden, shimmering circle.

The yellow light went out of it at once. And the Medusa fell, a helpless mountain of quaking green flesh. Only by a desperate, sidewise fling did he get his body from beneath it in time; even so it caught his legs.

The glowing organ, he was later sure, must have been the agency of its remarkable power of locomotion, perhaps emitting some radiant force that lifted and propelled it; perhaps giving it a grasp, in some manner yet inexplicable, upon the curvature of space itself.

Half under it he lay for a while unable to extricate himself. Still the creature was not completely dead; black appendages were whipping and writhing about him in aimless, spasmodic agony.

It was Hal Samdu who reeled back to his feet, ended the struggles of the palpitating horror with a few mighty blows of his club, and dragged John Star from beneath it.

A moment they stood gazing at it in dread; a quivering mountain of greenish protoplasm, helpless, twitching, tall as Hal Samdu's head, the yet-twitching tentacles sprawling away from the edge of it, three sightless eyes staring horribly.

Utterly hideous as it was, both of them were moved by a contrary impulse of pity for it, in its manifest agony of death.

"It had tortured her!" gasped Hal Samdu. "It deserved to die!"

They turned from it, then, lifted Jay Kalam, already returning to consciousness, struggling to sit up.

"Stunned!" he muttered. "So it's finished? Good! We must get on to Aladoree. Before others come. If it called for aid—— Hal, please help Giles and Ulnar out of the cell. Must—work fast!"

He dropped back again. He had, John Star saw, been cruelly hurt when the tentacles flung him down. Grave face white, eyes closed, gasping, he lay there a moment, then whispered:

"John? Find her. I'll be all right. We must be quick!"

John Star left him, ran around the quaking mountain of horror, found another grating in the floor. He dropped to his knees, peered into darkness faintly relieved by the green rays that streamed through the bars from the hall, made out a slight form, lying on the bare floor, sleeping.

"Aladoree!" he called. "Aladoree Anthar!"

The slender dim shape of her did not stir, he heard her quiet breathing—it seemed strange to him that she should be sleeping so innocently, so like a child, when the fate of the system depended on a thing she knew.

"Aladoree!" He spoke louder. "Wake up!"

She rose, then, quickly. Her quiet voice showed complete possession of her faculties, though it was dull, weary, hopeless.

"Yes. Who are you, here?"

"John Ulnar, and your——"

"John Ulnar!" Her low, tired voice cut him off, cold with scorn. "You've come, I suppose, to help your cowardly kinsman make me betray the specifications for AKKA? I'll warn you now that you're going to be disappointed. The human race is not all your own cowardly breed. Do what you like, I can keep the secret till I die—that, I think, won't be very long!"

"No, Aladoree!" he appealed, shocked and inexpressibly hurt by her bitter scorn. "No, Aladoree, you mustn't think that. We've come——"

"John Ulnar——" her voice cut him, hard with contempt.

Then Giles Habibula and Hal Samdu dropped by the grating.

"Bless my eye, lass! It's a mortal time since old Giles has heard your voice. A mortal time! How are you, lass?"

"Giles! Giles Habibula?"

In her voiceless cry that came up from darkness through the bars was incredulous relief, ineffable joy, that brought a quick, throbbing ache to John Star's heart. All the contemptuous scorn was gone; only pure delight was left, tremulous, complete.

"Ah, yes, lass, it's Giles. Old Giles Habibula, come on a mortal perilous journey to set you free, lass. Just wait a few blessed moments, while he works another precious lock."

Already he was on his knees by the sliding grille, his thick fingers, curiously deft and steady, moving over the little strange levers that projected from the case of the mechanism.

"Aladoree!" cried Hal Samdu, an odd, yearning eagerness in his voice. "Aladoree—have they—hurt you?"

"Hal?" came her glad, trembling cry. "Hal, too?"

"Of course! You think I wouldn't come?"

"Hal!" she sobbed again joyously. "And where's Jay?"

"He's——" began John Star, when Jay Kalam's grave tones, weak and uneven, came beside him:

"Here, Aladoree—at your command."

He reeled to the edge of the grating, sank beside it, still weak and white with pain, though smiling.

"I'm so—glad!" her voice came from darkness, broken with sobs of pure joy. "I knew—you'd try. But it was—so

far! And the plot—so clever—so diabolical——"

"Ah, lass, don't weep so!" urged Giles Habibula. "It's all right, now. Old Giles will have this mortal door open in a moment, and you out in the precious light of day again, lass!"

John Star abruptly sensed something amiss. Quickly he looked up and down the long, high-walled black hall. The vast bulk of the dead Medusa lay motionless, tentacles sprawling. The flood of green light revealed nothing moving, no enemy. Yet something, he knew it intuitively, was wrong.

Suddenly it struck him.

"Eric Ulnar!" he gasped. "Did you help him out of the cell?"

"Ah, yes, lad," wheezed Giles Habibula. "We couldn't leave the mortal wreck of him for the monsters to torture."

"Of course," rumbled Hal Samdu. "Where is——"

"He's gone!" whispered John Star. "Gone! Still a coward and a traitor. He's gone to give the alarm!"

XXIII.

"AH, NOW!" wheezed Giles Habibula. "Ready, lass, to come?"

The lock had snapped; he slid back the barred door.

"Please go down, John," said Jay Kalam. "Help her."

John Star swung through the opening, hung by his arms, dropped lightly on the floor of the cell beside Aladoree. Her gray eyes watched him doubtfully in the gloom.

"John Ulnar," she asked, her scornful dislike less open, yet still cutting him to the quick, "you came with them?"

"Aladoree!" he pleaded. "You must trust me!"

"I told you once," she said, "that I could never trust a man named Ulnar. That very day you locked up my loyal men, betrayed me to your traitorous kinsman!"

"I know!" he whispered bitterly. "I was a dupe, a fool! But come! I'll lift you."

"I was the fool," she said, "to trust an Ulnar."

"Come! We've no time."

"You must be more clever than Eric, if you have the confidence of my men. You Purples! You're trying, John Ulnar, to get the better of them and the Medusae, too!"

"Don't!" It was a pained cry.

"Please be quick!" urged Jay Kalam from above.

She came to him, then, still doubtful. John Star slipped an arm about her slight body, lifted her foot, swung her upward, to Hal Samdu's reaching arms; then leaped, himself, to catch them.

They stood in the immense, silent hall.

Aladoree was thin, John Star saw, under the green light, pale, her white face drawn with anxiety and suffering, gray eyes burning, with a fire too bright, ringed with blue shadows. Her startled outcry at sight of the hideous mountain of the dead Medusa showed nerves strained to the point of breakdown; yet her erect bearing revealed courage, decision, determination.

Torture had not conquered her.

"We're here, Aladoree," said Jay Kalam. "But we've no ship to leave in. No means, even, to get out of the city. And no proper weapons. We're depending on you. On AKKA."

Disappointment shadowed her worn face.

"I'm afraid, then," she said, "that you have sacrificed your lives in vain."

"Why?" Jay Kalam asked apprehensively. "Can't you build the weapon?"

Wearily, she shook her head.

"I think not. Not in time. Simple as it is, I must have certain material. And several hours to set it up and adjust it."

"We've the thing they used for communication with Eric Ulnar." He pointed to Hal Samdu's mace. "Rather

battered, now. It was electrical. Wires, and so on."

Again she shook her head.

"I don't think it would do. Not for everything. I could try. But it would take hours. And the creatures will soon find us."

"We must take it along," said Jay Kalam.

Hal Samdu unfastened it from the head of the tripod, slung it to his body by the connecting wires.

"We must do—something!" cried John Star. "Right away. Eric must have gone to give the alarm."

"We must somehow get outside the city," agreed Jay Kalam. "Aladoree, you know any way——"

"No. That way," she pointed, "the hall leads into a great shop, laboratory. Many of them are always there, working. Eric went that way, I suppose, to tell them. The other end is outside. A mile high—no way to get down, without wings,"

"There might be," mused Jay Kalam. "I remember—a drain, it looked to be. We must see."

They ran three hundred feet to a great door at the end of the hall, an immense, sliding grate of heavy black bars, crossed, close-set, fastened with a massive lock. Through the bars they saw the black city again—a storm raging over it.

Looming mountains of ebon metal, fantastic, colossal machines, all piled in titanic confusion, with no visible order, no regularity of shape or size or position. No streets; chasms merely, doors opening startlingly into them.

It was lashed with the hurricane. The four had weathered other storms, on their epic trek across the black continent, always toward the end of the week-long day, when swiftly chilling air caused precipitation. But they had seen no such cataclysm as this.

It was almost dark. A lurid pall of scarlet gloom shrouded the city's ebon, nightmare masses. Wind shrieked with maniacal fury. Rain fell in sluicing sheets; it drenched them, stung them with its icy whip, even in the shelter of the bars. Blinding lightning flamed continually overhead, stabbed red swords down incessantly at the tops of black buildings that loomed like tortured giants.

Below the door was a mile-deep chasm, walled in completely by black, irregular buildings, no way visible to leave its mysty, flood-drenched floor.

Aladoree shrank back instinctively from the chill rain that lashed through the bars, from the luridly ominous glow of the sky and the fearful bellow of the wind and thunder. Giles Habibula hastily retreated, muttering:

"Mortal me! I never saw such——"

"The lock, Giles!" Jay Kalam requested urgently.

"Bless my bones, Jay!" he howled above the roaring elements. "We can't just stroll out into that—the storm and a blessed pit a mile deep!"

"Please!"

"Ah, if you will, Jay. It is easier, now."

His deft, steady fingers manipulated the levers of the lock, more surely, this time, more confidently. Almost at once it clicked; the four men set their shoulders to the bars, slid the huge grille aside.

STAGGERING against wind and rain that now drove in with multiplied force, they peered over the square metal ledge. The blank, black wall dropped sheer under them for a long mile, sluiced with rain. Jay Kalam braced himself against the howling, gusty wind, pointed, shouted into the roar of thunder:

"The drain!"

They saw it, beside them, ten feet away. A huge, square tube, supported at close intervals by a metal flange that surrounded it, fastened it against the

wall. Straight into the pit it fell, dwindling to a thin line.

"The flanges!" Rather by watching his lips than by sound they caught the words. "A ladder. Too far apart. Inconvenient shape. But we can climb them. Down."

"Bless my bones!" howled Giles Habibula, into the tempest. "We can't do that—not in the storm. We can't even reach the mortal flanges! Poor old Giles Habibula——"

"John——" Jay Kalam's lips moved, his face a question.

"I'll try!" he screamed.

He was the lightest, the quickest, of the four, he knew; he could do the thing if any of them could. He nodded to Hal Samdu, smiling grimly. The giant's hands took him up, hurled him out over the chasm, into wild rain and bellowing, gusty wind.

His arms stretched out, his fingers caught the edge of a metal flange. But the savage wind had his body; it flung him out, over the abysm. Fingers strained. Shoulders throbbed. Muscles cracked. But he hung on.

The merciless gust released him, left him clinging to the flange, drenched, strangled, in roaring rain. He tried the flanges; found that they would serve, however awkwardly, as a ladder; nodded at the others.

He braced himself, then, standing on one leg, the other knee hooked over the flange above; waited, arms free. Jay Kalam was flung out and he caught him. helped him to a higher position. Then Giles Habibula, green-faced, gasping.

And Aladoree, who said in a queer, muffled tone, "Thank you, John Ulnar," when he caught her in his arms.

Hal Samdu then passed out the gory legs of the tripod, which they slung to their belts; standing on the narrow ledge, he closed the sliding grate, so the lock snapped, in hope of confusing pursuit. Then he leaped, through blinding sheets of rain, and John Star leaned out to catch him.

His great weight was an intolerable burden, in John Star's cramped position; a furious downward gust of wind increased it; he felt, as he clung to the giant's wet hand, that his body must be torn in two. But he kept his hold. Hal Samdu caught a flange with his free hand, was safe. And they started down the drain.

The bracing flanges were uncomfortably spaced; it would have been no slight feat to climb down a mile of them in the most favorable circumstances. Now rain fell in blinding, suffocating sheets from the crimson, roaring sky; demoniac gusts of wind tore at them. All of them were already half exhausted. And apprehension of inevitable pursuit drove them to reckless haste.

In only one way was the storm an advantage, John Star thought; it had driven the Medusae to shelter from above the buildings and the monstrous machines; there seemed no danger of accidental discovery, before pursuit started from above. But that advantage they paid for dearly in the battle with the mad fury of wind and rain.

They were halfway down, perhaps, when Aladoree fainted from sheer exhaustion.

John Star, just below her, had been watching her, afraid that she would slip from the wet flanges. He caught her, held her until she revived, protested stubbornly that she was able to climb again. Then Hal Samdu lifted her to his shoulders, made her cling to him pickaback, and they climbed on down.

The great chasm's floor, as they descended, became more distinctly visible through the gloom and the mist of falling water. A vast square pit, a full thousand feet on an edge. Black, blank sides of huge buildings walled in, without a break. The floor was flooded with yellow water from the rain. All the water on the planet appeared yellow in

volume, carrying in solution the insidious red gas.

Anxiously scanning the flooded floor, as they approached it, their descent slowed with fatigue, John Star could see no possible avenue of escape from it—unless they should climb another of the drains that were discharging their floods into the pit. And they were all too near exhaustion, he knew, to make such a climb, even if it promised safety.

The torrential rain slacked suddenly, when they were near the bottom. The rumble of thunder diminished; the scarlet sky grew swiftly brighter; the cold wind beat at them with decreasing violence.

John Star's feet had just touched the cold standing water on the floor, when Giles Habibula gasped the warning:

"My mortal eye! The bloody Medusae!"

Looking upward, he saw the greenish, black-fringed half moons, drifting one by one from the hall they had left, floating down swiftly.

XXIV.

STANDING in foot-deep water, as the others were finishing the descent behind him, John Star looked desperately about for some possible way of escape from the pit.

Before him lay the sheet of yellow flood water, a thousand feet square. Above it, on every side, stood glistening black walls of Cyclopean buildings, the lowest two thousand feet high. Here and there the abrupt high doors broke them, but none that he saw could be reached by any but a flying creature.

Against the little red rectangle of sky above the chasm, the pursuing Medusae were drifting down, little dark disks against the scarlet.

"There's no way!" he muttered to Jay Kalam, splashing down beside him. "For once—none! I suppose they'll kill us, now."

"There is *one* way," said Jay Kalam, his voice swift and strained. "If we've time to reach it. Not safe. Not pleasant. A grim and desperate chance. But better than waiting for them to slaughter us.

"Come!" he called, as Giles Habibula, the last, clambered down into the chill water. "No time to waste!"

"Where?" demanded Hal Samdu, splashing after him through the yellow water, Aladoree still clinging wearily to his back. "There's no way."

"The flood water," Jay Kalam observed succinctly, "manages to find an exit from the city."

At a splashing run, he led the way to an intake of the flood drains. A yellow whirlpool, ten feet across, roaring down through a heavy metal grating.

"My mortal eye!" wheezed Giles Habibula. "Must we dive into the blessed sewers?"

"We must," Jay Kalam assured him, "unless we want to wait for the Medusae to kill us."

"Bless my bones!" he wailed. "To be sucked down and drowned like a precious rat! And then vomited out, life knows, to be torn and swallowed by the monsters in the yellow river. Ah, Giles, it was a mortal evil day——"

"We must lift the lid," urged Jay Kalam, "if we can!"

Hal Samdu had set down Aladoree, weary, uncertain. Almost swept off their feet by the swirling yellow water, the four gathered along one side of the circular black grating, grasped it, strained their muscles. It did not move.

"A mortal hasp!" cried Giles Habibula, feeling along the edge.

Staggering in the mad current that buffeted his feet, Hal Samdu hammered and pried at the fastening with one of the tripod legs. John Star, glancing up at the square of crimson sky, saw the dark circles of the Medusae, larger now, midway to them.

The giant still beat and pried at the hasp, in vain. John Star tried futilely

to help him, and Jay Kalam. The furious swirl of yellow water rushed over it, hindering their efforts, making it almost impossible even to stand.

"It was Eric Ulnar who warned them," said Aladoree, her voice icy with bitter scorn. "One of them is carrying him. I see him pointing at us."

They renewed their efforts to break the hasp with their clumsy tools, panting, too busy to look up at approaching danger. At last the twisted metal broke.

"Now!" muttered Hal Samdu.

They gripped the bars again, lifted. The grate stirred a little to their united strength, settled back under the pressure of the roaring torrent.

They tried again, Giles Habibula panting, purple-faced, Hal Samdu's great muscles bulging, quivering with strain, even Aladoree adding her efforts. Still it did not rise.

The Medusae were fast drifting down upon them. Stealing an apprehensive glance, John Star saw a full score of them, some carrying black implements that must have been weapons, one bearing Eric Ulnar, gesticulating, seated in a swing of woven tentacles.

"We *must* lift it!"

They tried again, in new positions, straining fiercely. The grating came up suddenly, relatively light when above the water. They flung it back.

The open pit yawned before them, eight feet across. Mad, swirling water leaped into it in an unbroken sheet, from every side; it was a yellow funnel, foam-lined. Ominous, furious, deafening, the yell of wild waters came up out of it.

John Star paused, staring into its spinning, savage yellow maw with a sickening wave of horror. It seemed very suicide to dive into that bellowing vortex, suicide in a singularly fearful guise. He shuddered at images of being sucked down that tawny, foaming throat, whirled helpless through the sewers below, drowning, battered against the walls, finally belched into the horrors of the great river.

And Aladoree! It was impossible.

"We can't!" he shouted to Jay Kalam, above the snarling, sinister roar of it. "We can't drag her into that!"

"Mortal me!" hoarsely breathed Giles Habibula, the color of his face fading to a pallid, unhealthy greenish hue. "It's death! Blessed, howling death, suffocation!"

He reeled back, staggering in the water that tore at his feet.

Jay Kalam glanced at the Medusae drifting down, very close, now, with their black weapons and Eric Ulnar clinging to his cradle of tentacles; he looked gravely at Aladoree, a silent question on his face.

She glanced up at them, her pale face momentarily hardening with scorn. Her gray eyes, still cool and steady, though too bright and dark-rimmed with weariness, looked deliberately from one to another of the four, and then down into the thundering whirlpool.

A moment she hesitated. She smiled, then, oddly; made a little fleeting gesture of farewell. And dived into the roaring yellow funnel.

JOHN STAR was dazed by the suddenness of her action, by the cold, reckless courage of it, so astounding in a girl. It was a moment before he could recover his faculties, put down his own horror of that avid, howling maw. He tossed aside his improvised weapon, then; gasped a last full breath of air; followed.

Twenty feet down, he fell with the yellow, foaming vortex into a plunging river.

The red light of the sky had been gone in an instant. In complete darkness he was whirled along, beneath the black city. After a little time his struggles brought him to the surface. The drain was racing almost full. His fending arm was bruised against the top of the

tube. But he was able to inhale a gasp of foul, reeking air.

He caught breath, once, to shout Aladoree's name, then realized the utter futility of it. Whirling ahead of him through the darkness, in the mad torrent, she could never hear him above its angry roar. Nor would it serve any good if she did.

The passage turned presently; he was strangled in the smother of foam below the angle.

Again, after an indefinite time of waiting, fighting to keep afloat, breathing when he could, he was flung into a deeper, yet swifter current. Here the drain was all but full. The mad water washed and splashed against the roof of it, was beaten into foam; it was seldom he could find an open space from which to fill his lungs.

On and on he was rushed, until he felt that he had been fighting the savage torrent for hours, until his bruised, weary body screamed for relaxation, until his lungs shrieked for pure air again, not the foul, foam-filled pockets above the thundering tide.

The nightmare journey could not possibly last another moment, he was thinking, before he reached the river, when he plunged into a still wider channel. The current sucked him under. For seeming hours, deadly, lung-tortured, he fought for the surface, only to rise under racing metal, no air beneath it.

His body went limp, refused to make another effort. But he set his teeth, battled with every atom of his consciousness to keep water from his lungs, as the wild flood bore him on and on. He had reached, he felt, the very limit of endurance, when air was above him again, he could breathe.

On and on he was whirled, making feeble efforts to keep on the surface, gasping a breath of dank air at every opportunity. It seemed that dull, weary ages came and went, seemed that he must be floating under the whole black continent.

Could Aladoree, he wondered, have endured all this? And the three behind him, if they had dived before the Medusae came, could they be still alive?

Abruptly he was in wild fury of conflicting currents, drawn resistlessly down until a cruel weight of water bore on his agonized lungs. Fighting a weary way upward once more, he realized, too nearly lifeless to feel any glow of triumph, that light was in the water.

Up he broke through yellow foam, gratefully sucked in the clear reviving air of the open—quite oblivious, for the moment, of its insidious taint of the red gas.

Above, on the one side, was the planet's sky, sullenly crimson, washed to its full, sinister brilliance by the storm. On the other was the mile-high metal wall of the unearthly black metropolis, rising grimly black to the very zenith. He had been discharged into the surging flood of the yellow river.

Boiling, scarred with lighter lines of foam, pitted with vortexes of angry whirlpools, its turbid tide reached away from him, ten miles wide, so wide that the low, dark line of jungle on the farther bank was all but lost in red haze.

For miles below him, it rushed turbulently along the base of the mighty wall, until it reached the not-less-forbidding barrier of the black thorn jungle.

For months he had voyaged that yellow tide, had learned to face its thousand perils. But the others had been with him; they had been on board the raft, a crude ship, but navigable; they had been armed against the weird, ferocious life of river and air and jungle, rudely, but effectively. And he had not been half dead of exhaustion.

Anxiously, he looked about him for Aladoree—in vain.

When he had breath, he shouted her name. His voice was a thin, useless

sound, weak and hoarse, drowned in the roar from the chaos where the flood from the drains met the river's mighty tide.

But he saw her, presently, a hundred yards below him. Her head a tiny thing, bobbing upon the boiling yellow surface. Her body too small, he realized, too frail, too weary, to struggle long against the savage might of the river.

He swam toward her, slowly, wearily, his limbs all but dead.

The turbid current moved her toward him, carried her farther again, faster than he could swim, mocking him, taunting him, until, in the near-delirium of exhaustion, he gasped curses at it as if it had been a sentient, malicious thing.

She saw him, struggled feebly toward him, through rough yellow foam, as they raced along in the overwhelming shadow of the Medusae's walls.

He glanced back, sometimes; hoping that one of the three others might have come through alive; saw none of them.

Aladoree vanished before his eyes, when he was not a dozen feet from her, sucked down by a pitiless current, appeared again as he was about to dive hopelessly for her, fighting with her last energy.

He reached her, caught her arm, dragged it across his shoulder.

"Hang on!" he gasped. And, with a last grim spark of spirit: "If you can trust an Ulnar."

With the brief, wan ghost of a smile of relief, she clung to him.

The yellow, swirling, foaming tide bore them on, under the mighty, marching walls, toward the river bank below, with its savage, horror-haunted jungle of thorns.

XXV.

JOHN STAR had never any clear recollection of the time upon the river. In the ultimate stages of exhaustion, driven far beyond the normal limits of endurance, he was more machine than man. With the mechanical efficiency of an automaton, he kept himself afloat, and Aladoree. But he was less than half conscious.

The feel of gravel beneath his feet brought purpose briefly back. He waded and crawled up out of the yellow water, on the edge of a wide, smooth bar of black sand, dragging limp, unconscious Aladoree.

Three hundred yards across the dark bare sand rose the jungle; a barrier of black thorns, closely interwoven, towering two hundred feet against the crimson sky. A gloomy, forbidding rampart, it was splashed with huge, vivid blooms of flaming violet that gave it a certain terrible beauty, and it hid death in many guises.

The open sand, John Star knew, was a no man's land, menaced from the river and the jungle and the air. But he had scant heed left for danger. Pulling the exhausted girl safely out of the yellow shallows, into the dubious shelter of a mass of driftwood lodged against a sand-buried snag, he fell beside her on the sand bank, sank into the oblivion that his tortured, overdriven body had craved so long.

He knew, when he woke, that many hours had passed. The sinister, huge disk of the red sun was cut in half by the edge of the jungle; the air already chill with a grim threat of the fearful night approaching.

Aladoree lay still beside him, on the black sand, sleeping. Looking at her slight, defenseless form, breathing so slowly and so quietly, he felt a queer throb in his chest. How many times, he wondered, as they had lain there, had death passed by on the yellow river, or stared at their uncertain shelter from the wall of thorns, had eyed them, unarmed, sleeping—and spared them, and AKKA, that meant humanity's chance to carry on!

He tried to sit up, sank back with a gasp of pain. Every individual muscle

in his body was stiffly painful, protesting movement with agonizing stabs. Yet he forced himself up, rubbed his limbs until some flexibility returned to them, got unsteadily to his feet.

First he picked Aladoree up in his arms, still sleeping, and carried her higher on the bar, beyond the unseen peril that might strike from the shallows. He made a flimsy little screen of driftwood, to hide them, and found a heavy club, and waited by her, to watch until she woke.

With wary glance he scanned the river's tawny flood, flowing away until the farther dark jungle wall was dim in red haze. He eyed the bare waste of somber sand; the grim barrier of thorn jungle behind it; the mighty ebon ramparts of the Medusae's city, miles upriver, just visible above the jungle. But it was out of the crimson sky that danger came, gliding on silent wings.

The creature was low when he saw it, diving at the sleeping girl behind her little screen of branches. Somewhat it resembled a dragon fly grown to monstrous size. It had four thin wings, spreading twenty feet; its slender body, sinisterly graceful, was large as a man's. It was, he saw, like the creature that Giles Habibula had once battled for his bottle of wine.

Beautiful, it was. Strangely and savagely beautiful. The frail wings were blue, blue of a singular, vivid intensity. They were translucent; they glittered like thin sheets of dark sapphire. Ribs of scarlet veined them. The slim, graceful body was black, oddly and strikingly patched with bright yellow. The one enormous eye was like a jewel of polished jet.

A single pair of limbs stiffened under it, cruel yellow talons spread to clutch the girl's body. And its tail, a thin yellow whip, scorpionlike, armed with a keen black barb, arched forward to sting.

John Star leaped straight in the path of it, swung his club for the jet-black eye. But the brilliant wings tilted a little, the creature swerved up, striking at him in place of the girl. His blow missed the great, solitary eye; the thin, pitiless lance of its curving sting was driven straight at him.

He flung his body down, twisting his blow to fend away the stabbing barb. He felt the impact as the club struck the slender, whipping tail; the venomed point was driven aside, yet it grazed his shoulder with a flash of blinding pain.

Scrambling instantly back to his feet, in spite of the searing pain from the sting, he saw the creature rise and turn and glide back toward him, ineffably graceful upon translucent blue-and-scarlet wings. Again it dived, talons set. This time, he saw, the barbed tail was hanging at a sharp angle; his club, he realized, had broken it.

Staggered with agony, he aimed his blow again at the bright jet disk of the eye. And this time the creature did not swerve. It plunged straight at him, merciless yellow talons grasping. In the last instant, dizzy and half blind with pain from its venom, he realized that the talons would strike his body with the full force of its dive.

Fiercely, he sought to steady his reeling world, put every ounce of his strength behind the heavy piece of driftwood, felt it crush solidly home against the huge black glittering disk. Then his sensations dissolved in the acid of pain.

Half dazed, he was presently dimly aware that it had not carried him away, but was floundering spasmodically about on the sand, dragging his helpless body still fastened in its locked talons. His last blow, he vaguely realized, had been fatal.

Presently the death struggles ceased, the furry body collapsed upon him. The pitiless yellow talons, even in death, were still set in his arm and shoulder. One by one, when the pain from the sting began to ebb a little, he strained his fin-

gers to open them; he staggered at last to his feet, faint, sick, bleeding somewhat.

Even dead, the thing was beautiful. Narrow wings, lying unbroken on the black sand; glistening, luminous sheets of sapphire, ruby-veined. Slender, curving body, covered with short, soft fur, patterned in yellow and black. Only the bloody talons and the broken sting were hideous—and the head of it, pulped under his last blow.

Weakly, he reeled away from it, too faint even to pick up his club. He sank down beside Aladoree, still quietly breathing in the dead sleep of exhaustion, peacefully unaware of the death that had been so near.

SUNK IN listless, hopeless apathy of fatigue and suffering, at first John Star did not even move when he saw three tiny figures toiling along the edge of the sand bar. They must be, he realized dimly, at last, Jay Kalam and Hal Samdu and Giles Habibula, come alive, by some miracle of courage and endurance, through the drains and out of the yellow river. But he was too deep in exhaustion to feel any hope or interest.

He sat there, by the sleeping girl and the brilliant dead thing, aimlessly watching them come wearily over the black sand, out of hazy red distance.

Three strange, haggard men, each with a few tattered bits of cloth still clinging to a worn, exposure-browned body. Bearded men, long-haired, shaggily unkempt. They walked close together. Each of them carried a club or a thorn spear. Their sunken, gleaming eyes looked ever about, with unending wariness. They were like three primitive savages, hunting in the shadow of some primordial jungle; three elemental beasts, cautious and alert.

It was strange to think of them as survivors of the crushed, betrayed legion of space, splendid fighting body of a far-spread, civilized system, battling to defend it from the age-old science of an alien star. Could these shaggy animals decide an interstellar war?

John Star at last found spirit to stand, wave at them. They saw him, hurried to him over the bar.

Hal Samdu, he saw as they came near, still carried the black mechanism from the tripod, slung about his great shoulders by its connecting wires. He had dived into the drains, burdened with it; swam with it out of the yellow river.

"Aladoree?" he rasped, hoarse, weary, anxious, stalking up ahead of the others.

"Asleep." John Star found energy for the one word, the gesture.

The giant dropped beside her, eagerly solicitous, a smile of relief on his haggard, red-bearded face.

"You carried her out?" he rasped. "And killed—*that?*"

John Star could only nod. His eyes closed, but he knew that Jay Kalam and Giles Habibula were coming up, heard the latter wheezing weakly.

"Ah, mortal me! Washed through the sewers like a blessed bit of garbage, and flung to die amid the precious horrors of the mortal yellow river. Ah, poor old Giles Habibula! It was a mortal evil day——"

His voice changed.

"Ah, the lass! The lass has not been harmed. And this blessed, glittering monster! John must have killed it. Ah, old Giles knows how you feel, lad! A mortal bitter time, we've all been through!"

His voice brightened again.

"This creature—the flesh of it would be good to eat! It is like the one with which I once battled so mortal hard for my bottle of wine—that I never got to taste! We must have a fire. I'm precious weak from starvation. Ah, mortal hungry!"

John Star drifted away, then, a second time, into blissful oblivion.

It was colder, still, when he woke. His body was numb and stiff, though a

sheltered fire of driftwood blazed beside him. Dread night was coming apace; the sun's angry disk completely gone, the sky a low dome of baleful crimson twilight. Bitter wind blew across the river, toward the jungle.

Giles Habibula was by the fire, grilling meat he had cut from the dead flying thing. John Star was gnawingly hungry; it must have been the fragrance of the roast, he realized, that had awakened him. But he did not eat at once.

Jay Kalam and Hal Samdu were beside Aladoree, beyond the fire. The little mechanism that the giant had carried so far, they had taken apart. The pieces of it were spread out before them, on a flat slab of driftwood; coils of wire and curious little bits of metal.

He stood up, hastily, despite the stiffness of his body, went to them. In their absorption, they did not look up. Before Aladoree was an odd little device, assembled from the black metal parts, from rudely carved fragments of wood. She was fingering the remaining bits of metal, anxiously, one by one, rejecting each with a little hopeless shake of her head.

"You're setting it up?" John Star whispered eagerly. "AKKA?"

"Trying to," breathed Jay Kalam abstractedly.

John Star glanced across the black jungle top, toward the towers and the fantastic mechanisms of the Medusae's unearthly city, looming ominously, in the far distance, against red twilight. It was sheer impossibility, he felt, that the crude little device on the sand should ever do injury to those colossal walls.

"I must have iron," said Aladoree. "A tiny bit of it, the size of a nail, would do. But I must have it for the magnetic element. But for that, there's everything I need. But I can't find any iron. There's none here."

She laid the little mechanism down hopelessly.

"We must find ore, then," said John Star. "Build a furnace, smelt it."

Jay Kalam shook his head gravely, wearily.

"Can't do that. No iron on the planet. The Medusae, you know, were first going to conquer our system for the Purples, just for a little iron. In all our wanderings, I saw no trace of iron deposits."

"We can't build the weapon, then," Aladoree said slowly. "Not here. If we could get back to the system——"

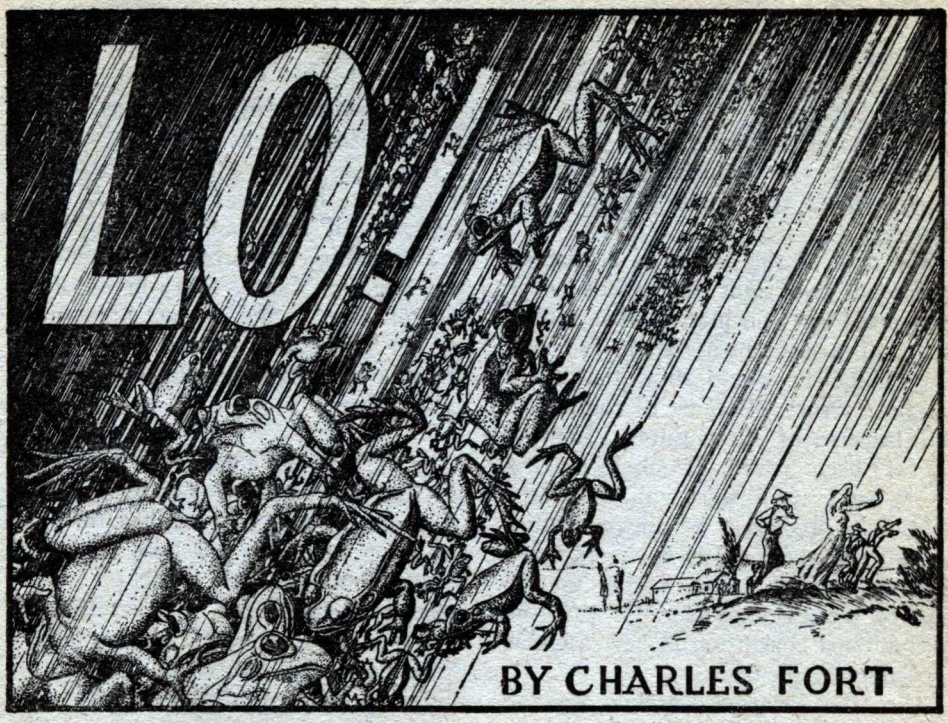
"The ship is lying wrecked, somewhere on the bottom of the ocean."

A little hopeless group, they stood there, shivering in the chill wind that rose in the darkening crimson twilight, bitter with its threat of the long fearful night. Across the dark, hostile jungle they stared, at the somber walls and towers and unguessable mechanisms of the Medusae's stronghold, alien, ominous, colossal, looming portentously against fatal gloom.

From walls and towers, abruptly, flared eerie green flames. They saw titanic forms rising, the strange huge shapes of the Medusae's interstellar fliers. In a vast black swarm they ascended, like monstrous insects, as the far thunder of the green flames rolled over the jungle and the river; and vanished at last in the blood-red sky.

"Their fleet!" whispered Aladoree. "Flying away to the system, with their fearful hordes, to occupy our planets as they destroy humanity. Their fleet, already gone! If we had found a bit of iron—— But it's too late. We've already failed."

To be concluded next month.



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PART FIVE

XI.

THE STANDARDIZED explanation of mysterious human strangers, who have appeared at points upon this earth, acting as one supposes inhabitants of some other world would act, if arriving here, or acting as inhabitants of other parts of this earth, transported in a state of profound hypnosis, would probably act, is that of imposture. Having begun with a pretty liberal view of the prevalence of impostors, I am not going much to say that the characters of our data were not impostors, but am going to examine the reasons for saying that they were. If, except fraudulently, some of them never have been explained conventionally, we are just where we are in everything else that we take up, and that is in the position of having to pretend to think for ourselves.

The earliest of the alleged impostors in my records—for which, though not absolutely, I draw a dead line at the year 1800—is the Princess Caraboo, if not Mary Willcocks, though possibly Mrs. Mary Baker, but perhaps Mrs. Mary Burgess, who, the evening of April 3, 1817, appeared at the door of a cottage, near Bristol, England, and in an unknown language asked for food.

But I am not so much interested in

whether the Princess, or Mary, was a rascal, as I am in the reasons for saying that she was. It does not matter whether we take up a theorem in celestial mechanics, or the case of a girl who jabbered, we come upon the bamboozlements by which conventional thought upon this earth is made and preserved.

The case of the angles in a triangle that equal two right angles has never been made out; no matter what refinements of measurement would indicate, ultrarefinement would show that there had been errors. Because of continuity, and because of discontinuity, nothing has ever been proved. If only by making a very bad error to start with, Professor Einstein's prediction of the curvature of lights worked out as it should work out, we suspect before taking up the case of the Princess Caraboo that the conventional conclusion in her case was a product of mistakes.

That the Princess Caraboo was an impostor—first we shall take up the case, as it has been made out:

London *Observer,* June 10, 1923—that the girl, who spoke unintelligibly, was taken before a magistrate, Samuel Worrall, of Knowle Park, Bristol, who, instead of committing her as a vagrant, took her to his home. It is not recorded just what Mrs. Worral thought of that. It is recorded that the girl was at least what is said to be "not unprepossessing."

When questioned the "mysterious stranger" wrote in unknown characters, many of which looked like representations of combs. Newspaper correspondents interviewed her. She responded with a fluency of "combs," and a smattering of "bird cages" and "frying pans." The news spread, and linguists traveled far to try their knowledge, and finally one of them was successful. He was a "gentleman from the East Indies," and, speaking in the Malay tongue to the girl, he was answered. To him she told her story. Her name was Caraboo, and one day while walking in her garden in Java, she was seized by pirates, who carried her aboard a vessel, from which, after a long imprisonment, she escaped to the coast of England.

The story was colorful with details of Javanese life. But then Mrs. Willcocks, not of Java, but of a small town in Devonshire, appeared and identified her daughter Mary. Mary broke down and confessed. She was not prosecuted for her imposture; instead, Mrs. Worrall was so kind as to pay her passage to America.

MOSTLY our concern is in making out that this case was not made out—or, more widely, that neither this nor any other case ever has been made out—but I notice a little touch of human interest entering here. I notice that we feel a disappointment, because Mary broke down and confessed. We much prefer to hear of impostors who stick to their impostures. If no absolute line can be drawn between morality and immorality, I can show, if I want to, that this touch of rascality in all of us—or at any rate in me—is a virtuous view, instead. So when an impostor sticks to his imposture, and we are pleased, it is that we approve a resolutely attempted consistency, even when applied to a fabric of lies.

Provided I can find material enough, I can have no trouble in making it appear "reasonable," as we call it, to accept that Mary, or the Princess, confessed, or did not confess, or questionably confessed.

Chambers' Journal, 66-753—that Caraboo, the impostor, had told her story of alleged adventures in the Malay language.

Further along, in this account—that the girl had spoken in an unknown language.

This is an inconsistency worth noting We're on the trail of bamboozlement,

though we don't have to go away back to the year 1817 to get there. We hunt around. We come upon a pamphlet, entitled "Caraboo," published by J. M. Cutch, of Bristol, in the year 1817. We learn in this account, which is an attempt to show that Caraboo was unquestionably an impostor, that it was not the girl, but the "gentleman from the East Indies," whose name was Manuel Eyenesso, who was the impostor, so far as went the whole Javanese story. To pose as a solver of mysteries, he had pretended that, to his questions, the girl was answering him in the Malay language, and pretending to translate her gibberish, he had made up a fanciful story of his own.

Caraboo had not told any story, in any known language, about herself. Her writings were not in Malay characters. They were examined by scientists, who could not identify them. Specimens were sent to Oxford, where they were not recognized. Consequently, the "gentleman from the East Indies" disappeared. We are told in the pamphlet that every Oxford scholar who examined the writings, "very properly and without a moment's hesitation, pronounced them to be humbug." That is swift propriety.

If the elaborate story of the Javanese princess had been attributed to a girl who had told no understandable story of any kind, it seems to us to be worth while to look over the equally elaborate confession, which has been attributed to her. It may be that regretfully we shall have to give up a notion that a girl had been occultly transported from the planet Mars, or from somewhere up in Orion or Leo, but we are seeing more of the ways of suppressing mysteries. the mad fishmonger of Worcester shovels his periwinkles everywhere.

According to what is said to be the confession, the girl was Mary Willcocks, born in the village of Witheridge, Devonshire, in the year 1791, from which at the age of sixteen she had gone to London, where she had married twice. It is a long, detailed story. Apparently the whole story of Mary's adventures, from the time of her departure from Witheridge to the time of her arrival in Bristol, is told in what is said to be the confession. Everything is explained—and then too much is explained. We come to a question that would be an astonisher, if we weren't just a little sophisticated by this time:

By what freak of accomplishment did a Devonshire girl learn to speak Javanese?

The author of the confession explains that she had picked up with an East Indian, who had taught her the language.

If we cannot think that a girl, who had not even pretended to speak Javanese, would explain how she had picked up Javanese, it is clear enough that this part of the alleged confession is forgery. I explain it by thinking that somebody had been hired to write a confession, and with too much of a yarn for whatever skill he had, had overlooked the exposed imposture of the "gentleman from the East Indies."

All that I can make of the story is that a girl mysteriously appeared. It cannot be said that her story was imposture, because she told no intelligible story. It may be doubted that she confessed, if it is accepted that at least part of the alleged confession was forgery. Her mother did not go to Bristol and identify her, as, for the sake of a neat and convincing finish, the conventionalized story goes. Mrs. Worrall told that she had gone to Witheridge, where she had found the girl's mother, who had verified whatever she was required to verify. Caraboo was shipped away on the first vessel that sailed to America; or, as told in the pamphlet, Mrs. Worrall, with forbearance and charity, paid her passage far away.

In Philadelphia, somebody took charge of her affairs, and, as if having never heard that she was supposed to have confessed, she gave exhibitions, writing in an unknown language. And I wouldn't give half this space to the story of the Princess Caraboo, were it not for the epitomization, in her story, of all history.

I SHOULD like to think that inhabitants of other worlds, or other parts of one existence, have been teleported to this earth. How I'd like it, if I were teleported the other way, has nothing to do with what I'd like to think has befallen somebody else. But I can't say that our own stories, anyway so far, have the neat and convincing finish of the conventional stories.

Toward the end of the year 1850, a stranger, or I should say a "mysterious stranger," was found wandering in a village near Frankfort-on-the-Oder. How he got there, nobody knew. See the *Athenaeum,* April 15, 1851. We are told that his knowledge of German was imperfect. If the imperfections were filled out by another Manuel Eyenesso, I fear me that suggestions of some new geographical, or cosmographical, knowledge can't develop. The man was taken to Frankfort where he told his story, or where, to pose as a linguist, somebody told one for him. It was told that his name was Joseph Vorin, and that he had come from Laxaria. Laxaria is in Sakria, and Sakria is far from Europe—"beyond vast oceans."

In the London *Daily Mail,* September 18, 1905, and following issues, are accounts of a young man who had been arrested in Paris, charged with vagrancy. It was impossible to understand him. In vain had he been tried with European and Asiatic languages, but, by means of signs, he had made known that he had come from Lisbian. *Eisar* was the young man's word for a chair; a table was a *lotoba,* and his *sonar* was his nose.

Mr. George R. Sims, well-known criminologist, as well as a story-writer, took the matter up scientifically. As announced by him, the mystery had been solved by him. The young man, an impostor, had transposed letters in fashioning his words. So the word "raise," transposed, becomes *eisar.* But what has a raise to do with a chair? It is said that true science is always simple. A chair raises one, said Mr. Sims, simply. Now take the word *sonar.* As we see, when Mr. Sims points it out to us, that word is a transposition of the word "snore," or is almost. That's noses, or relation to noses.

The criminologists are not banded like some scientists. In Paris, the unbanded wise men said that Mr. Sims' transpositions were far-fetched. With a freedom that would seem reckless to more canny scientists, or without waiting three or four months to find out what each was going to say, they expressed opinions. The savants at Glozel, in the year 1927, were cannier, but one can't say that their delays boosted the glories of science.

One of the wise men of Paris, who accused Mr. Sims of fetching too far, was the eminent scientist, M. Haag. "Take the young man's word *Odir,* for 'God,'" said M. Haag; "transpose that, and we have *Dio,* or very nearly. *Dio* is Spanish for God. The young man is Spanish." Another distinguished wise man was M. Roty. He rushed into print, while M. Haag was still explaining. "Consider the word *sacar,* for 'house,' said M. Roty. Unquestionably we have a transposition of the word *casa,* with a difference of only one letter, and *casa* is Italian for 'house.' The young man is Italian." *Le Temps,* September 18—another wise man, a distinguished geographer, this time, identified the young man as one of the Russian Dukhobors.

Where would we be, and who would send the young ones to school, if all the other wise men of our tribes had such independence? If it was not for a conspiracy that can be regarded as nothing short of providential, so that about what is taught in one school is taught in the other schools, one would spend one's lifetime, learning and unlearning, in school after school. As it is, the unlearning can be done, after leaving one school.

The young man was identified by the police, as Rinaldo Agostini, an Austrian, whose fingerprints had been taken several times before, somewhere else, when he had been arrested for vagrancy.

Whether the police forced this mystery to a pseudo-conclusion, or not, a suggestive instance is told of in the London *Daily Express,* October 16, 1906.

A young woman had been arrested in Paris, charged with picking pockets, and to all inquiries she answered in an unknown language. Interpreters tried her with European and Asiatic languages, without success, and the magistrate ordered her to be kept under surveillance, in a prison infirmary. Almost immediately, watchers reported that she had done exactly what they wanted to report that she had done—that she had talked in her sleep, not mumbling in any way that might be questionable, but speaking up "in fluent French, with the true Parisian accent." If anybody thinks that this book is an attack upon scientists, as a distinct order of beings, he has a more special idea of it than I have. As I'm seeing things, everybody's a scientist.

IF THERE ever have been instances of teleportations of human beings from somewhere else to this earth, an examination of inmates of infirmaries and workhouses and asylums might lead to some marvelous astronomical disclosures. I suppose I shall be blamed for a new nuisance, if after the publication of these notions, mysterious strangers start cropping up, and when asked about themselves, point up to Orion or Andromeda.

Suppose any human being ever should be translated from somewhere else to this earth and should tell about it. Just about what chance would he have for some publicity? I neglected to note the date, but early in the year 1928, a man did appear in a town in New Jersey, and did tell that he had come from the planet Mars. Wherever he came from, everybody knows where he went, after telling that.

But if human beings ever have been teleported to this earth from somewhere else, I should think that their clothes, different in cut and texture, would attract attention. Clothes were thought of by Manuel Eyenesso. He pretended that Caraboo had told him that, before arriving in Bristol, she had exchanged her gold-embroidered Javanese dress for English clothes. Whatever the significance may be, I have noted a number of mysterious strangers, or "wild men," who were naked.

A case that is mysterious, and that may associate with other mysteries, was reported in the London newspapers—*Daily Mail,* April 2; *Daily News,* April 3, 1923. It was at the time that Lord Carnarvon was dying, in Cairo, Egypt, of a disease that physicians said was septic pneumonia, but that, in some minds, was associated with the opening of Tut-Ankh-Amen's tomb.

Upon Lord Carnarvon's estate, near Newbury, Hampshire, a naked man was running wild, often seen, but never caught. He was first seen upon March 17th. Upon March 17th, Lord Carnarvon fell ill, and he died upon April 5th. About April 5th, the wild man of Newbury ceased to be reported.

If human beings from somewhere else have been translated to this earth——

There are mysteries at each end, and in between, in the story of Cagliostro.

He appeared in London, and then in Paris, and spoke with an accent that never has been identified with any known language of this earth. If, according to most accounts of him, he was Joseph Balsamo, a Sicilian criminal, who, after a period of extraordinarily successful imposture, was imprisoned in Rome until he died, that is his full life-story.

The vagueness of everything—and the merging of all things into everything else, so that stories that we, or some of us, have been taking as "absolutely proved" turn out to be only history, or merely science. Hosts of persons suppose that the exposure of Cagliostro, as an impostor, is as firmly, or rationally, established, as are the principles of geology or astronomy. And it is my expression that they are right about this.

Wanted—well, of course, if we could find data to support our own notions—but, anyway, wanted—data for at least not accepting the conventionalized story of Cagliostro:

See Trowbridge's story of Cagliostro. According to Trowbridge, the identification of Cagliostro was fraudulent. At the time of the "Necklace Affair," the police of Paris, needing a scapegoat, so "identified" him, in order to discredit him, according to Trowbridge. No witness appeared to identify him. There was no evidence, except that handwritings were similar. There was suggestion in the circumstance that Balsamo had an uncle, whose name was Guiseppe Cagliostro.

One supposes that a police official, whose labors were made worth while by contributions from the doctors of Paris, searched records until he came upon an occurrence of the name of Cagliostro in the family of a criminal, and then went on from that finding. Then it was testified that the handwritings of Balsamo and Cagliostro were similar. For almost everybody's belief that of course Cagliostro was identified as Joseph Balsamo, there is no more than this for a base.

In February, 1928, the New York newspapers told of a graphologist, who had refused to identify handwriting according to the wishes of the side that employed him. According to all other cases that I have ever read of, anybody can get, for any handwriting, any identification that he pays for. If in any court, in any land, any scientific pronouncement should be embarrassing to anybody, that is because he has been too stingy to buy two expert opinions.

Cagliostro appeared, and nothing more definite can be said of his origin. He rose and dominated, as somebody from Europe, if transported to a South Sea island, might be expected to capitalize his superiority. He was hounded by the medical wise men, as Mesmer was hounded by them, and as anybody who, to-day, would interfere with flows of fees, would be hounded by them. Whether in their behalf, or because commonplace endings of all mysteries must be published, we are told, in all conventional accounts, that Cagliostro was an impostor, whose full life story is known and is without mystery.

It is said that, except where women were concerned, where not much can be expected, anyway, Cagliostro had pretty good brains. Yet we are told that, having been identified as an Italian criminal, he went to Italy.

There are two accounts of the disappearance of Cagliostro. One is a matter of mere rumors; that he had been seen in Aix-les-Bains; that he had been seen in Turin. The other is a definite story that he went to Rome, where, as Joseph Balsamo, he was sent to prison. A few years later, when Napoleon's forces were in Rome, somebody went to the prison and investigated. Cag-

liostro was not there. Perhaps he had died.

XII.

HERE is the shortest story that I know of: St. Louis *Globe-Democrat,* November 2, 1886—a girl stepped from her home, to go to a spring.

Still, though we shall have details and comments, I know of many occurrences of which, so far as definitely finding out anything is concerned, no more than that can be told.

After all, I can tell a shorter story: He walked around the horses.

Upon November 25, 1809, Benjamin Bathurst, returning from Vienna, where, at the court of the Emperor Francis, he had been representing the British government, was in the small town of Perleberg, Germany. In the presence of his valet and his secretary, he was examining horses, which were to carry his coach over more of his journey back to England. Under observation, he walked around to the other side of the horses. He vanished. For details, see the *Cornhill Magazine,* 55-279.

I have not told much of the disappearance of Benjamin Bathurst, because so many accounts are easily available; but the Reverend Sabine Baring-Gould in "Historic Oddities" tells of a circumstance that is not findable in all other accounts that I have read. It is that, upon January 23, 1810, in a Hamburg newspaper appeared a paragraph telling that Bathurst was safe and well, his friends having received a letter from him. But his friends had received no such letter.

Wondering as to the origin of this paragraph and the reason for it, Baring-Gould asks: "Was it inserted to make the authorities abandon the search?" Was it an inquiry-stopper? is the way I word this. Some writers have thought that, for political reasons, at the instigation of Napoleon Bonaparte, Bathurst was abducted. Bonaparte went to the trouble to deny that this was so.

In the *Literary Digest,* 46-922, it is said that the police records of London show that 170,472 persons mysteriously disappeared in the years 1907-13, and that nothing had been found out in 3,260 of the cases. Anybody who has an impression of 167,212 cases, all explained ordinarily, may not think much of 3,260 cases left over. But some of us, now educated somewhat, or at least temporarily, by experience with pseudo-endings of mysteries, will question that the 167,212 cases were so satisfactorily explained, except relatively to not very exacting satisfactions. If it's a matter of remarriage and collection of insurance, half a dozen bereft ones may "identify" a body found in a river or cast up by the sea. They settle among themselves which shall marry again and collect. Naturally enough, wherever Cupid is, cupidity is not far away, and both haunt morgues. Whether our astronomical and geological and biological knowledge is almost final or not, we know very little about ourselves.

THERE have been many mysterious disappearances of human beings. Here the situation is what it is in every other subject, or so-called subject, if there is no subject that has independent existence. Only those who know little of a matter can have a clear and definite opinion upon it. Whole civilizations have vanished. There are statistical reasons for doubting that five sixths of the tribes of Israel once upon a time disappeared, but that is tradition, anyway. Historians tell us what became of the Jamestown colonists, but what becomes of historians? Persons as well-known as Bathurst have disappeared. As to the disappearance of Conant, one of the editors of *Harper's Weekly,* see the New York newspapers beginning with January 29, 1885. Nothing was found out. For other

instances of well-known persons who have disappeared, see the New York *Tribune,* March 29, 1903, and *Harper's Magazine,* 38-504.

Chicago *Tribune,* January 5, 1900—"Sherman Church, a young man employed in the Augusta Mills, Battle Creek, Michigan, has disappeared. He was seated in the company's office, when he arose and ran into the mill. He has not been seen since. The mill has been almost taken to pieces by the searchers, and the river, woods, and country have been scoured, but to no avail. Nobody saw Church leave town, nor is there any known reason for his doing so."

Because of the merging of everything—without entity, identity, or soul of its own—into everything else, anything, or what is called anything, can somewhat reasonably be argued any way. Anybody who feels so inclined will be as well justified, as anybody can be, in arguing about all mysterious disappearances in terms of Mrs. Christie's mystery.

In December, 1926, Mrs. Agatha Christie, a writer of detective stories, disappeared from her home in England. The newspapers, noting her occupation, commented good-naturedly, until it was reported that, in searching moors and forests and villages and towns, the police had spent ten thousand pounds. Then the frugal Englishmen became aware of the moral aspect of the affair, and they were severe. Mrs. Christie was found. But, according to a final estimate, the police had spent only twenty-five pounds. Then everybody forgot the moral aspect and was good-natured again.

It was told that Mrs. Christie, in a hotel somewhere else in England, having been keen about getting newspapers every morning, had appeared at the hotel, telling fictions about her identity. She was taken home by her husband. She remembered nobody, her friends said, but, thinking this over, they then said that she remembered nobody but her husband. Several weeks later, a new book by Mrs. Christie was published. It seems to have been a somewhat readable book and was pleasantly reviewed by frugal Englishmen, who are very good-humored and tolerant, unless put to such expense as to make them severe and moral.

Late in the year 1913, Ambrose Bierce disappeared. It was explained. He had gone to Mexico to join Villa and had been killed at the Battle of Torreon. New York *Times,* April 3, 1915—mystery of Bierce's disappearance solved—he was upon Lord Kitchener's staff, in the recruiting service, in London. New York *Times,* April 7, 1915—no knowledge of Bierce, at the war office, London. In March, 1920, newspapers published a dispatch from San Francisco telling that Bierce had gone to Mexico to fight against Villa and had been shot.

It would be a fitting climax to the life of this broad-minded writer to be widely at work in London, while in Mexico, and to be killed while fighting for and against Villa. But that is pretty active for one, who, as Joseph Lewis French points out in *Pearson's Magazine,* 39-245, was incurably an invalid and was more than seventy years old. For the latest, at this writing, see the New York *Times,* January 1, 1928. Here there is an understandable explanation of the disappearance. It is that Bierce had criticized Villa.

London *Daily Chronicle,* September 29, 1920—a young man, evening of September 27th, walking in a street, in South London——

Magic—houses melting—meadows appearing——

Or there was a gap between perceptions.

However he got there, he was upon a road, with fields around. The young man was frightened. He might be far away and unable to return. It was

upon a road, near Dunstable, thirty miles from London, and a policeman finding him exclaiming, pacing back and forth, took him to the station house. Here he recovered sufficiently to tell that he was Leonard Wadham, of Walworth, South London, where he was employed by the ministry of health. As to how he got to this point near Dunstable, he could tell nothing.

EARLY in the year 1905, there were many mysterious disappearances in England. Here we have an account of one of them. I take it from the Liverpool *Echo,* February 8. Upon February 4th, a woman was found, lying unconscious, upon the shore near Douglas, Isle of Man. No one had seen her before, but it was supposed that she had arrived by the boat from England, upon February 3rd. She died, without regaining consciousness.

There were many residents of the island who had, in their various callings, awaited the arrival of this boat, and had, in their various interests, looked more than casually at the passengers; but two hundred Manxmen visited the mortuary and not one of them could say that he had seen this woman arrive.

The news was published, and then came an inquiry from Wigan, Lancashire. A woman had "mysteriously disappeared" in Wigan, and by her description the body found near Douglas was identified as that of Mrs. Alice Hilton, aged sixty-six, of Wigan. As told, in the Wigan *Observer,* somebody said that Mrs. Hilton had been last seen, upon February 2nd, on her way to Ince, near Wigan, to visit a cousin. But nobody saw her leave Wigan, and she had no known troubles. According to the verdict at the inquest, Mrs. Hilton had not been drowned, but had died of the effects of cold and exposure upon her heart.

I wonder whether Ambrose Bierce ever experimented with self-teleportation. Three of his short stories are of "mysterious disappearances." He must have been uncommonly interested to repeat so.

Upon September 4, 1905, London newspapers reported the disappearance, at Ballycastle, County Antrim, Ireland, of Professor George A. Simcox, Senior Fellow of Queen's College, Oxford. Upon August 28th, Professor Simcox had gone for a walk and had not returned. There was a search, but nothing was learned.

Several times before, Professor Simcox had attracted attention by disappearing. The disappearance at Ballycastle was final.

XIII.

AS INTERPRETERS of dreams, I can't say that we have ambitions, but I think of one dream that many persons have had repeatedly, and it may have relation to our present subject. One is snoring along, amid the ordinary marvels of dreamland—and there one is, naked, in a public place, with no impression of how one got there. I'd like to know what underlies the prevalence of this dream, and its disagreeableness, which varies, I suppose, according to one's opinion of oneself. I think that it is subconscious awareness of something that has often befallen human beings, and that in former times was commoner. It may be that occult transportations of human beings do occur, and that, because of their selectiveness, clothes are sometimes not included.

"Naked in the street—strange conduct by a strange man." See the Chatham (Kent, England) *News,* January 10, 1914. Early in the evening of January 6th—"weather bitterly cold"—a naked man appeared, from nowhere that could be found out, in High Street, Chatham.

The man ran up and down the street, until a policeman caught him. He could tell nothing about himself. "Insanity,"

said the doctors, with their customary appearance of really saying something.

This naked man of Chatham appeared suddenly. Nobody had seen him on his way to his appearing point. His clothes were searched for, but could not be found. Nowhere near Chatham was anybody reported missing.

Little frogs, showers of stones, and falls of water—and they have repeated, indicating durations of transportory currents to persisting appearing points, suggesting the existence of persisting disappearing points somewhere else. There is an account, in the London *Times*, January 30, 1874, of repeating disappearances of young men in Paris. Very likely, as a development of feminism, there will be female Bluebeards, but I don't think of them away back in the year 1874. "In every case, their relatives and friends declare that they were unaware of any reason for evasion, and the missing persons seem to have left their homes for their usual avocations."

A field, somewhere near Salem, Virginia, in the year 1885—and that in this field there was a suction. In the New York *Sun*, April 25, 1885, it is said that Isaac Martin, a young farmer, living near Salem, Virginia, had gone into a field, to work, and that he had disappeared. It is said that in this region there had been other mysterious disappearances.

In Montreal, in July and August, 1892, there were so many unaccountable disappearances that in the newspapers the headline "Another Missing Man" became common. In July, 1883, there was a similar series, in Montreal. London *Evening Star*, November 2, 1926—"mysterious series of disappearances—eight persons missing, in a few days." It was in and near Southend. First went Mrs. Kathleen Munn and her two small children. Then a girl aged fifteen, girl aged sixteen, girl aged seventeen, another girl aged sixteen. Another girl, Alice Stevens, disappeared. "She was found in a state of collapse, and was taken to hospital."

New York *Sun*, August 14, 1902—disappearances, in about a week, of five men, in Buffalo, New York.

Early in August, 1895, in the city of Belfast, Ireland, a little girl named Rooney disappeared. Detectives investigated. While they were investigating, a little boy named Webb disappeared. Another child disappeared. September 10th—disappearance of a boy, aged seven, named Watson. Two days later, a boy named Brown disappeared. See the *Irish News*, Belfast, September 20th. In following issues of this newspaper, no more information is findable.

London *Daily Mirror*, August 5, 1920—"Belfast police are in possession of the sensational news that eight girls, all under twelve years of age, are missing since last Monday week, from the Newtownards Road, East Belfast."

In August, 1869, English newspapers reported disappearance of thirteen children, in Cork, Ireland. I take from the Tiverton *Times*, August 31st. It may be that the phenomenon cannot be explained in terms of local kidnapers, because somewhere else, at the same time, children were disappearing. London *Daily News*, August 31st—excitement in Brussels, where children were disappearing.

Five "wild men" and a "wild girl" appeared in Connecticut, about the first of January, 1888. See the St. Louis *Globe-Democrat*, January 5, and the New York *Times*, January 9, 1888.

I have records of six persons, who, between January 14, 1920, and December 9, 1923, were found wandering in or near the small town of Romford, Essex, England, unable to tell how they got there, or anything else about themselves. I have satisfactorily come upon no case in which somebody has stated that he was walking, say, in a street in

New York, and was suddenly seized upon and set down somewhere, say in Siberia, or Romford. I have come upon many cases like that of a man who told that he was walking along Euston Road, London, and—but nine months later—when next he was aware of where he was, found himself working on a farm in Australia. If human beings ever have been teleported, and, if some mysterious appearances of human beings be considered otherwise unaccountably, an effect of the experience is effacement of memory.

THERE have been mysterious appearances of children in every land. In India, the explanation of appearances of children of an unknown past is that they had been brought up by she wolves.

There have been strange fosterings—young rabbits adopted by cats, and young pigs welcomed to strangely foreign founts. But these cases are of maternal necessity, and of unlikely benevolence, and we're asked to believe in benevolent she wolves. I don't deny that there is, to some degree, benevolence in wolves, cats, human beings, ants; but benevolence is erratic and not long to be depended upon. Sometimes I am benevolent, myself, but pretty soon get over it. The helplessness of a human infant outlasts the suckling period of a wolf. How long do she wolves, or any of the rest of us, keep on being unselfish, after nothing's made by unselfishness?

For an account of one of the later of the "wolf-children" of India—year 1914—see *Nature,* 93-566. In the *Zoölogist,* 3-12-87, is an account of a number of them, up to the year 1852. In the *Field,* November 9, 1895, the story of the "wolf-child" of Oude is told by an assistant commissioner, who had seen it. It was a speechless, little animal, about four years old. Policemen said that, in a wolf's den, they had found this child, almost devoid of human intelligence. The child grew up and became a policeman.

In *Human Nature,* 7-302, is a story of two "wolf-children" that were found at different times near Agra, Northern India. Each was seven or eight years old. For a recent case, see the London *Observer,* December 5, 1926. Hindus had brought two "wolf-children," one aged two, and the other about eight years old, to the Midnapore Orphanage. The idea of abandonment of young idiots does not look so plausible, in cases of more than one child. Also, in a case of several children, a she wolf would seem very graspingly unselfish. The children crawled about on all fours, ate only raw meat, growled, and avoided other inmates of the orphanage. I suppose that they ate only raw meat, because to confirm a theory that was all they got.

London *Daily Mail,* April 6, 1927—another "wolf-child"—boy aged seven—found in a cave, near Allahabad. For an instance that is the latest, at this writing, see the New York *Times,* July 16, 1927. Elephant youngsters and rhinoceros brats have still to be heard of, but, in the London *Morning Post,* December 31, 1926, is a story of a "tiger-child." A "leopard-boy" and a "monkey-girl" are told of in the London *Observer,* April 10, 1927.

Our data are upon events that have astonished horses and tickled springboks. They have shocked policemen. I have notes upon an outbreak of ten "wild men" who appeared in different parts of England in that period of extraordinary phenomena, the winter of 1904-5. One of them, of origin that could not be found out, appeared in a street in Cheadle. He was naked. An indignant policeman, trying to hang his overcoat about the man, tried to reason with him, but had the same old trouble that Euclid and Newton and Darwin had, and that everybody else has, when trying to be rational, or when trying,

in the inorganic, or scientific, way, to find a base to argue upon. I suppose the argument was something like this:

Wasn't he ashamed of himself?

Not at all. Some persons might have reasons for being ashamed of themselves, but he had no reason for being ashamed of himself. What's wrong with nakedness? Don't cats and horses and dogs go around without clothes on?

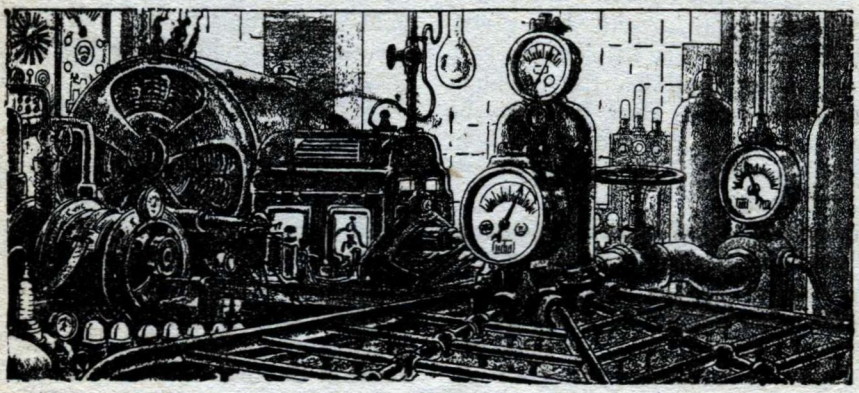
But they are clothed with natural, furry protections.

Well, Mexican dogs, then.

Let somebody else try—somebody who thinks that, as products of logic, the teachings of astronomy, biology, geology, or anything else are pretty nearly final, though with debatable minor points, to be sure. Try this simple little problem to start with. Why shouldn't the man walk around naked? One is driven to argue upon the basis of conventionality. But we are living in an existence, which itself may be base, but in which there are not bases. Argue upon the basis of conventionality, and one is open to well-known counter-arguments. What is all progress but defiance of conventionality?

The policeman, in Euclid's state of desperation, took it as self-evident disgracefulness. Euclid put theorems in bags. He solved problems by incasing some circumstances in an exclusion of whatever interfered with a solution. The policeman of Cheadle adopted the classical method. He dumped the "wild man" into a sack, which he dragged to the station house.

Another of these ten "wild men" spoke in a language that nobody had ever heard of before and carried a book in which were writings that could not be identified, at Scotland Yard. Like a traveler from far away, he had made sketches of things that he had seen along the roads. At Scotland Yard, it was said of the writings: "They are not French, German, Dutch, Italian, Spanish, Hungarian, Turkish. Neither are they Bohemian, Greek, Portuguese Arabic, Persian, Hebrew, nor Russian." See London newspapers, and the *East Anglian Daily Times,* January 12, 1905.



A Final Word on Colossus

Dear Editor:

It was the little controversy in your May issue between a fellow collegian, Alburger of Swarthmore, and your enjoyable author Wandrei that finally crystallized my intention to write you. In a somewhat undiplomatic manner Alburger criticized a specific transgression of the author, without however going into any detail as to the general principle under which it warranted criticism. Hence Wandrei's natural-enough mystification, for of course a difference in preference concerning two theories designed to explain the same facts is not enough to justify such stern criticism of an author for choosing the unorthodox one.

Let me state my thesis. Science-fiction is a game that differs from science itself in but one fundamental respect: it is entitled to assume a successful outcome of the experiments it devises for the testing of its theories. In the postulation of the theories themselves, however, they are subject to exactly the same limitations, two of which are particularly important. First, known facts must not be denied. (This applies mainly to positive facts. We assume many negative facts but hardly any have been proved, perhaps none outside of mathematics. Certainly no critic could, merely because something never had happened, assume to forbid a Science-Fictionist's postulating that at a different time or under other conditions it did happen. Neither, of course, are axioms facts. Indeed, an axiom may be defined as something assumed as true because it is impossible to prove it.) Second, in putting forward a new theory its author should show where it also explains the important facts explained by any accepted theory which the new one contradicts.

Now to discuss a few special cases in the light of the above. Take the Alburger-Wandrei case first. Wandrei is, of course, defending his position as a fictionist, not as a scientist, for if his complete ignorance of the facts which the Fitzgerald-Lorenz theory was invented to explain was not made plain by his using an expansion instead of a contraction, it certainly was by his reference to the Michelson-Morley *experiment* as a *theory*. The trouble is that Wandrei has unknowingly violated my second rule. Alburger cannot complain merely because Wandrei has taken a new theory instead of an old, and indeed does not. What Wandrei did do was to take the exact opposite of a theory that explained certain experimental facts. If, then, the facts fitted in with a contraction, it is up to the man proposing an expansion either to explain away the supposed facts, or to prove where the fallacy lay in the logic of the old theory. Wandrei blandly failed to do either. It is really a good deal simpler and safer to

invent something quite new, for the rules of the game impose certain obligations on the contradicter of an accepted theory, which he cannot evade without considerable loss of face.

I have set up a high standard; unless an author confined himself to mighty simple things he would have to be a real scientist of no mean magnitude to live up to it. But things are not all black and white. I feel that infringements of my rules are culpable only in proportion to the number of people who know enough to be offended by them. In extreme cases I might add the number of those who are misled by them in what *ought* to be a matter of common knowledge. Personally I think that the fundamental idea of *Colossus* was splendid, and I doubt if many of your readers were familiar enough with relativistic mechanics to be annoyed seriously by Wandrei's fudging in the method he used for translating his human being into the superuniverse. I enjoyed the story tremendously in spite of it.—Dr. E. C. Scott, Sweet Briar, Va.

From Cal Tech

Dear Editor:

As I was an ardent fan of the old A. S., it was with a great deal of regret that I saw its passing. And it was with a correspondingly great pleasure that I received the news of its resurrection.

The other day, as I came back from the store with my latest copy of A. S. in my hand, I stopped and watched the unloading here at the institute of the great 120-inch mirror. It was very interesting to watch the handling of the ten-foot disc of glass. It weighed five tons.

I might mention, for the benefit of those who are interested in the institute, that I am here because of an interest in science, derived from the reading of this type of magazine. For quite a while before the old A. S. came out, I read the other two on the market. Then I got all three, but soon dropped the other two. In all the time of its publication, I missed but one issue of Astounding.

It is my opinion that your thought-variant stories constitute one of the most original and best ideas in the history of science-fiction.

Lo! is proving intensely interesting to me. My mother has mentioned seeing the aftermath of a rain of frogs an inch and a half or so long. There was a frog for every square foot of ground. I wonder whether or not these matters will ever be fully, or at all, explained. One reading this collection of data is reminded of the falling of manna. How many Biblical miracles are happening to-day? Miraculous healing seem to be among us at Lourdes. And there are others.

With best wishes for the greatest success of our magazine.—Hugh Gilmore, Jr., Blacker House, California Institute of Technology, Pasadena, California.

Can Any One Beat This?

Dear Editor:

I wonder whether any of your readers can challenge my contention of being the world's largest individual holder of scientific-fiction magazines.

I am the proud possessor of about 1,700 copies, which I have been collecting for years, as I think they will have quite some value in time.—Leon Pois, 2101 Grand Concourse, New York City.

Why Not Four Years?

Dear Editor:

The type of stories in your magazine is getting better and better. I have only two complaints. It isn't on the news stands often enough. Couldn't it be issued bi-monthly? Secondly, couldn't an *astounding* story, no matter how wild or absurd, be played on a perfectly substantial stage? In your June issue your authors, two of them, have not based their stories on solid facts. In *Crater 17, Near Tycho,* Mr. Kelly informs us that the *Isis* was a Mars-Earth freight space ship capable of a speed of one thousand miles per Earth hour. At Mars' closest approach to Earth, every seventeen years, it would require a little over four years for the *Isis* to go from Mars to Earth. Evidently its freight was worth waiting for. It would seem as though its entire cargo would of necessity be fuel and supplies for itself. Mr. Kelly also states, that on their way to the Moon, the ship had been on its way two days and a half, sixty hours, yet Brand remarked: "We've held even all

the way from atmosphere at one thousand per. Thirty-six thousand miles gone." If death were certain, why did Gar and Jorgensen trouble themselves donning space suits?

In Mr. Gallun's *The World Wrecker,* this statement appears. "Jets of liquefied hydrogen, inside this case, keep its contents three degrees above zero Centigrade." The inside of the case was covered with frost. As zero Centigrade is the freezing point of water, would ice and frost form at three above?

He Never Slept and *The Emperor's Heart* were the best stories I ever read. —Elmer C. La Lone, Route 1, Norfolk, New York.

"Good Ideas, Plus Good Writing"

Dear Editor:

Here comes my monthly letter, with its customary praises and knocks. Mostly, I can praise you, because you've progressed further in your nine months of life, in proportion of good stories, than any of the other science-fiction magazines. But I have some knocks too, and truthfully, I am glad of that, for a magazine that was perfect would hardly have an interest for me. For example, look at the large number of readers who seem to like the imperfectly written, imperfectly scienced stories of Harl Vincent and Jack Williamson. I'm not saying that all these two writers write is badly written, but a lot of it is. Of the two, I like Williamson better.

The Legion Of Space will stand out for a long time above other stories of a like nature. The story is really good. Then in the last, the June issue, we have *Rex,* by Vincent, the best short story he has ever written. A surprise ending, a different handling of an old theme, and the development of a new type of character. How about a tale of a robot and a man working together as close friends to overcome some monstrous difficulty?

Sidewise In Time, by Leinster, was very good. He handled an idea which I have had for many years, very well. Undoubtedly a "th-v." (I wonder if my abbreviation for that apt term, of your making, will go over?) Frank K. Kelly's story was very well done, and seemed to imply a coming sequel. I'm willing to have it. *The Thing In The Pond,* by Paul Ernst, was good, but all the same, the idea has been used time and again, in the same manner; a hackneyed plot. Try to avoid them. *He Never Slept* was O. K., but I don't think Fearn is so good as to have stories by him every month.

The Emperor's Heart, by Henry Kostkos, was clever, but rather too fantastic. I'm wondering where the emperor's excess flesh went when he dwindled to the proportions of an embryo girl. *The World Wrecker,* by Raymond Z. Gallun, I thought would turn out to be another earth-invasion story, but it was different.

So much for the stories, which, you notice, I have said were all well done. You are doing what other magazines sometimes do not think necessary—coupling good ideas with good writing.

Now, of course, the biggest thing in the June Astounding was the announcement of the coming of *The Skylark Of Valeron!* Thanks a lot. With that story, there will be no doubt as to which is the best science-fiction magazine on the market. I have long known, in fact ever since I read the first and third installments of *The Skylark Of Space* in 1928, that Edward E. Smith would come to be the greatest writer of interplanetary stories.

I see that Smith is writing, in his newest story, of the fourth dimension. I have always wondered why he didn't tackle the subject, because I am certain that he can present a more logical explanation than any other writer. He just seems to have that gift of doing everything best. Some day, I hope he turns his attention to a good explanation of time traveling.

When I started the letter, I had knocks aplenty stored up for you, but I guess they will have to remain stored up. Keep up your present rate of progress, though, and you will probably erase from existence all my proposed brickbats.—Paul Cahendon, 322 W. 4th Street, Cincinnati, Ohio.

No Reprints, Rest Assured

Dear Editor:

First, no reprints. If you want A. S. to be valued as the best science-fiction magazine on the market, keep publishing your original stories.

Then, as to serials. As for me, I don't mind them in the least. In fact, I like the serial type of story. If you should publish a book-length novel every month, you would barely have room for a few

tiny short stories. But if you published all short stories, they would become boresome. Please don't change!

The story I liked best in your June issue was *Rex*. It contained some good scientific ideas.

Next in line comes the thought-variant, *Sidewise In Time*. A very good scientific idea.

My interest was captured by the story, *He Never Slept*. The idea of dreams from some long past or future in the subconscious mind is a pet of mine. Maybe you'll hear of my ideas some time.

Come on, you August!—Thomas R. Daniel, 232 Olive Street, Claremont, California.

Can Any One Supply These Issues?

Dear Editor:

The dead have risen for me. I read the old Astounding Stories until it was discontinued and when I heard of that I felt as if a very dear friend had died.

Then a fortnight ago I learned from a pen-friend that Astounding had been reborn last October. Was I glad? And how! The new magazine is about 50% better than the old, and to think what I have been missing for the last seven months! The purpose of this letter is to ask if I can obtain these missed issues (October, November, December, '33; January, February, March, April, '34), and at what price?

If all your issues were like the May issue, yours is a super science-fiction magazine.—Philip S. Hetherington, "Tycooly," Southwaite, Carlisle, Cumberland.

"Serials O. K."

Dear Editor:

I have just finished my first issue of Astounding Stories and I am certainly delighted to find such a fine magazine! I have often seen Astounding on the stands, but for no reason at all neglected to try it. Now, after my first issue, I can hardly wait for the next, and I certainly hope that Astounding thrives for years to come. Many people seem to think that most any magazine with a so-called "flashy" cover is junk. I only wish this view could be changed, because I can perfectly honestly say that I have enjoyed your magazine easily as much as some two- or three-dollar books I have read.

Anybody, regardless of who he is, who reads these stories and says they are "crazy," I consider as being too ignorant fully to comprehend them as being the fact stories of the near future!

I like *all* your stories, but especially *Sidewise In Time, Crater 17, Near Tycho* and *The Legion of Space*. I think serials are O. K.—George M. Clark, Jr., 26 Pierrepont St., Brooklyn, N. Y.

Back Issues Wanted

Dear Editor:

I am a fairly old veteran (I hope not) of science-fiction reading. During 1933 all science-fiction was at a low tide. To my surprise (and delight) Astounding Stories came out then, just as I was about to give up science-fiction in despair and try some other line of reading. When I found it was under the Street & Smith banner, I knew it would be good. Now I am an Astounding Stories reader for life.

Some people believe it is the authors who make the magazine what it is. I do and I don't. That is to say, the authors contribute 80% of the magazine and the editor the remaining 20%. A good editor gets good stories if he wishes his magazine to succeed. I believe you are a better editor than either of the editors of your two rival magazines. Their magazines prove it.

I would like to trade for back issues of Astounding to complete my files. I have lost many by lending them out. Any one who wishes to trade their Astoundings for one or more of my magazines, some of which are 1929 and 1930 issues of science-fiction magazines, please write me, sending a list of what they wish to trade. Remember, first come, first served!

I will end with a plea for more stories by Jack Williamson, Harl Vincent, Clark Ashton Smith and David H. Keller. —Henry Ackermann, 5200 Maple Avenue, "Pimlico," Baltimore, Maryland.

The American Rocket Society

Dear Editor:

For your information, I write you about the American Interplanetary Society.

This is prompted by an inquiry I have seen made on page 157, column two, of the June, 1934, issue.

The original name of this society was the American Interplanetary Society. This has very recently been changed to the American Rocket Society. The office of the secretary is held at present by Dr. Lichtenstein, 147 West 86th St., New York City.

This is a sober, serious-minded organization whose fundamental purpose is the development of the science of astronautics. It publishes a monthly bulletin on the progress being made by members in developing rocketry. In fact much has remained unpublished. We have for instance two experimental rockets almost completed and they soon will be fired. The secretary, Dr. Lichtenstein, or I will be glad to answer any inquiries.—Nathan Carver, 47 Norfolk St., N. Y. C.

A Challenge for Jack

Dear Editor:

Hooray! That word expresses my exact sentiments for Astounding Stories. Ever since it has come under the Street & Smith banner, it has been better with each issue. Mr. Editor, every single reader is indebted to you. I bet that even the worst cranks are admitting that Astounding is improving. I have been a constant reader ever since the change, and it certainly has been going places!

The June issue is the best yet. Howard V. Brown certainly knows how to paint cover illustrations. I would much rather see Elliot Dold doing most of the inside ones.

The line-up of authors for June is marvelous. Every story has a kick to it. Murray Leinster surely opened a new field of speculation with his plot in *Sidewise In Time*. Ask Frank K. Kelly to write a sequel to *Crater 17, Near Tycho*. *The Emperor's Heart* was a nifty little story. It was a little classic all by itself.

I would like to see a science department. The thing that I would like most is comments by the editor at the end of each letter.

I was terribly surprised when Jack Darrow said that *He From Procyon* was Nat Schachner's best story. Oh, Jack! How could you?—David A. Kyle, 22 Cottage Street, Monticello, New York.

Smooth Edges

Dear Editor:

Congratulations, editor, for securing for the readers E. E. Smith. *The Skylark Of Valeron!* It seems only natural that you should be the one to print this story.

I've only read three stories in this number, but they are enough to keep the magazine up to the high standard it's setting.

Of the three stories I've read, *Crater 17, Near Tycho* was the best. Then, *The Emperor's Heart* and *The Thing In The Pond*.

Here's a suggestion for the readers: Instead of pestering the editor about smooth edges, take the magazines to any large printing concern in your city and they will trim the magazine for practically nothing.—Olon F. Wiggins, 2418 Stout Street, Denver, Colorado.

"Undoubtedly the Best"

Dear Editor:

I should say you did have an announcement for us, your readers, this month. And what an announcement! Dr. E. E. Smith's third *Skylark* story starting with the August issue of good old Astounding. That is really something to shout about. If *The Skylark Of Valeron* is even half as entertaining as its predecessors, it'll be a wow!

The current Williamson serial gets better every installment; I believe it's his best.

Sidewise In Time shows Leinster at his peak and is, in my humble opinion, your most excellent thought-variant to date.

Frank K. Kelly's *Crater 17, Near Tycho*, while readable, wasn't what I hoped for.

The Thing In The Pond, by Paul Ernst, appeared to me to be far more suited to a weird magazine than Astounding. Yet it was a good story—much better than *He Never Slept* and *Rex*.

Astounding Stories is the best science-

fiction magazine on the market to-day—undoubtedly.—Alvin Earl Perry, Box 265, Rockdale, Texas.

A Final (?) Broadside

Dear Editor:

The biggest announcement of the year has exceeded expectations. I know, in advance, that *The Skylark Of Valeron* will be the best story ever printed in Astounding Stories. If it is better than the two previous *Skylark* stories, it will be the best story ever published anywhere. Mr. Editor, if you stretch this story to more than four parts, I'll shoot.

I, also, would not care to have *The Skylark Of Space* and *Skylark Three* reprinted in magazine form. I would, however, like to have them in permanent book form. Why not have Chelsea House do it?

At any rate, to show my appreciation of the big announcement, I'm giving away a copy of the August issue of Astounding to some one who has not yet had the pleasure of reading the magazine, as yet.

The June issue I found very enjoyable. *Sidewise In Time* is one of Leinster's best. It certainly was a great tale.

Crater 17, Near Tycho is Frank K. Kelly's best to date.

The Legion Of Space is coming along fine. I still wish you had made it four parts.

The Emperor's Heart I found a very absorbing tale.

The other shorts were good also.

The cover for June is a fine one indeed. Howard V. Brown is a good artist for covers, but his drawings are not so good.

And now I must bring up the subject of Wesso again, perhaps for the last time. I know that you want to put out the best science-fiction magazine possible. Your efforts have shown that you are in earnest. No other science-fiction magazine publishes better stories than does Astounding to-day. In illustrations you have improved. You have a fine cover artist in Brown. You have fine interior decorators in Dold and Marchioni. Still the readers ask for their old favorites, Wesso and Paul. And don't you want to please the greater number of your readers?

Well—how about it?—Jack Darrow, 4224 N. Sawyer Avenue, Chicago, Illinois.

Awards

Dear Editor:

For about six years, I have been reading science-fiction. For six years I have watched with great delight the constantly increasing interest in this new type of literature. When I had finished reading the March issue of Astounding Stories, I felt that, at last, I had found the perfect magazine, and I was not wrong.

Over a period of six months, your magazine has jumped from last position in its field to first. Congratulations to so fine an editor.

You should feel honored—whether you do or not makes no difference—for the first time I am writing to an editor, and for the first time I have become really enthused over a story, or rather a short novelette, printed in your magazine.

Ever since March I have eagerly awaited the appearance of Astounding Stories on the news stands. Yesterday I bought the May issue and to-night I am a rabid fan of Charles Diffin's *The Long Night*. For its special type, it is a masterpiece. Mr. Diffin, I would advise you to tackle a sequel to this story.

Now for some other fine authors. To you, Donald Wandrei, goes a medal for honor. Your writing is clear; your plots are original; your heroes live and breathe. To you, Nat Schachner, whom I have followed for two years, goes the medal for perseverance. You have improved your writing 100% since I read your first novel. To Stanton Coblentz goes a medal for artistry. Your works are finished with a high polish.

Concerning the thought-variant type—a wonderful idea. The editor's, I presume. Keep the motheaten plots at bay and the standard high. *Colossus* tops them all, for it creates the emotion desired—how insignificant we are, after all.

In closing, may I say that my personal library consists of almost every classic written in English, yet I find great enjoyment in Astounding? The simple explanation? Why, it causes one to think—and I don't mean maybe. Archæology is one of my hobbies. A novel on Mu or Atlantis would be my idea of a grand treat.—Donald N. Bradley, Roxbury School, Cheshire, Connecticut.

Is Brass Tacks Large Enough Now?

Dear Editor:

Congratulations on your June issue of Astounding. You have done a fine job on your magazine. It is more than you promised us. You have come up the ladder quickly and surely and we now have a really great science-fiction magazine, with new things showing up all the time. Just what we wanted and hoped for. I really can't see how you did such a fine job in the short time from the first issue.

I can really say I have never had the pleasure of reading such a fine magazine as Astounding Stories is at present.

I have no brickbats to throw. I have one or two requests to make. Please enlarge Brass Tacks. We all like to know just how the other fellow feels and enjoy reading his opinions.

Have Elliot Dold do all the inside illustrations. He's great!

One more thing; I enjoy your page, when you tell us how things are coming along and what to expect. It is excellent. I read this the first thing.—Lewis C. Duff, Jr., 5 Central Avenue, Bradford, Massachusetts.

Here They Are!

Dear Editor:

I've just purchased the June issue of our magazine, and it's some issue! Look at those names on the contents page: Fearn, Leinster, Kelly, Williamson, Vincent, Gallun, Kostkos and Ernst.

And the cover! Wesso couldn't have done any better. The story illustrations by Dold are also good.

Was I excited! The cause? *The Skylark Of Valeron!* Any one who has read the magnificent chronicle of the *Skylarks* can appreciate my feelings. I had always longed for more adventures with the immortal Seaton and Crane. And now they are here, in 85,000 words! In my opinion, *Skylark Three* was the greatest science-fiction story ever published. —William H. Kennedy, 31 Wellesley Park, Dorchester, Massachusetts.

Scissors—Smooth Edges

Dear Editor:

Congratulations on copping E. E. Smith's latest addition to the *Skylark* series, before any other science-fiction magazine could lay hands on it. However, when you say this new story surpasses the Doc's two former stories, I'm from Missouri. *The Skylark Of Space* is, beyond question, the greatest interplanetary story of all time. While there have been, literally, hundreds of imitations, none has even approached the original.

I'm not going to attempt to criticize or rate the stories in the June issue according to their degree of excellence. I've finally reached the conclusion that each person has his own separate and distinct opinions and ideas about every story. I will say, though, that *The Emperor's Heart*, by Henry Kostkos, was an entertaining, extremely plausible surgical story, up to the last couple of pages, when it descended to the absurd. Of course, that's only my personal opinion of it.

In conclusion, let me say that, as far as I am concerned, you don't have to bother to trim down your cover to fit the inside pages. I quickly remedy this situation with a pair of scissors as soon as I get the magazine home.—Robert Tufts, 61 Rathbun Avenue, White Plains, New York.

We Thank You

Dear Editor:

I was overjoyed to hear that *The Skylark Of Valeron* is to be published. Chiefly, this is what made me write to you. When you said that the most important announcement of the year was to be made, I expected that it would be a quarterly. But to my disappointment, a quarterly was not even mentioned. Really, now, are you going to issue a quarterly?

I make a very strong appeal for it, and I am sure that most of the readers agree with me. You could charge double the present price of A. S. and use new stories. I'm sure every one would cooperate.

By the way, you say that if every reader would interest one more reader, this magazine would reach way over a hundred thousand times above par in a year. So far, I have interested three people who never even knew Astounding existed—and they do enjoy it.

The thought-variant idea is a knock-

out. My only favorite author is Stanton A. Coblentz. He usually runs a humorous vein through his stories, but I don't know what is happening to him at the present moment. I guess it's the shortness of the story, where a person can hardly get anything that is really suitable to fit right in.

Wallace West also writes in a smooth fashion, which I like. For the artists, keep Brown on the cover and Elliot Dold and Thompson for the inside. Keep up your present editorials; it's pretty good to hear how the magazine is progressing.—Alexander Novak, 921 Hudson Street; Trenton, N. J.

Smack!

Dear Editor:

Three cheers! You have got Astounding Stories back to the level again. Every story in it is good this month.

Get Ziska and Diffin and Schachner to write again. They are good. Say, tell Earl Perry he's crazy. *Black Death* was the BEST in March.

Tell N. H. Bordon he shouldn't take some of these stories so hard. Is he a cream puff or something? The edges are all right for the rest of us. He's not the only guy who's fifteen, either.—Perrin Bailey, 27 Central Terrace, Auburndale, Massachusetts.

Splash o' Ink Wanted

Dear Editor:

Howard Brown is one of the best cover artists on the market, when speaking in terms of a science-fiction colorist, but he is a poor interior sketcher. The technique of black and white is not quite his.

So far, I'm against the sequels asked for in Brass Tacks.

I like the new ideas of most of the stories. I don't care how unusual or unorthodox they are. There are too many people saying a rule cannot be broken. It would be all right if we knew all the fundamentals of the universe and their variations, but we don't. *Lo!* is a good example of this. Am glad you are publishing Fort's stuff.

If there are any of you guys and you gals in the audience who would care to write to an old sniffer-out of science-fiction, I'd welcome a splash o' ink.—Kenneth B. Pritchard, 82 Second Street, Pittsfield, Massachusetts.

Short and Sweet

Dear Editor:

Congratulations! Your magazine is the best that money can buy.

In all my science-fiction career—five years—I have never read better stories in any science magazine (all three) than in Astounding. It is hardly possible to rank the yarns.

There is no use wishing you luck. You have it. I hope it continues.—Jack De Pargher, 47 Crescent Avenue, Long Beach, California.

Thanks!

Dear Editor:

My opinions pro and con on the May issue are as follows:

Stories, very good. Illustrations, all good except Mr. Brown's, which were all rotten.

Stories: 1. *Brain Of Light*—excellent, a super-scientific story. Come again, Mr. Fearn.

2. *Blinding Shadows*—very good indeed. Keep Mr. Wandrei on your staff.

3. *The Long Night*—good, but slightly muddled in parts.

4. *Succubus*—very good. It resembled *White Lady* in the January, 1933, issue of Strange Tales. By the way, will you please let me know whether you are going to re-issue that wonderful magazine, Strange Tales.

5. *The Legion Of Space*—good.

6. *The 100th Generation*—good. Mr. Schachner is better when writing these stories than the thought-variants. His T. V. themes are too similar.

7. *The Wall*—good. Now—look out—a brickbat—*whee*—crash!!! Your feature artist—Mr. Brown. Awful. Your best two artists—M. Marchioni—Dold, very good.

On the whole your May issue was not quite as good as the April issue, because of Mr. Brown.

I've just got you a new reader. He lives in Carlisle, Cumberland (look it up in an Atlas), which is about 90 miles from Liverpool.—E. Sutcliffe, 3 Ballantyne Road, West Derby, Liverpool, 13, England.

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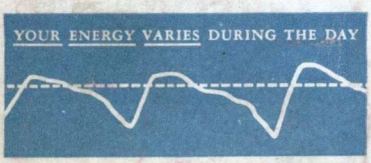
A FACT!

SCIENCE ADVANCES NEW DATA THAT MAY COMPLETELY CHANGE YOUR IDEAS OF CIGARETTES!



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