

BEN GLEED, King of Speed by Don Wilcox

SEE
BACK
COVER

AMAZING

DECEMBER • 20c

STORIES



LINERS of SPACE

by HENRY GADE

**GREAT
STORIES BY
MANLY WADE
WELLMAN
RALPH MILNE
FARLEY
NELSON S.
BOND**



A YEAR AGO HE WAS SET TO BE FIRED
*... NOW HE'S RIGHT-HAND-MAN
 TO THE BOSS !*

"YES sir," continued Joe, "his desk used to be right next to mine—now look where he is."

Half proudly and half enviously he and Frank watched Ed as he swung down the company steps, his arm linked in that of J.P., the head of the firm. Ed is getting \$7,500 a year now, while Joe at \$5,000 is a long way ahead of Frank, a newcomer.



"Boy, he must be plenty smart," said Frank.

"Plenty smart is right," said Joe. "Ed has a lot on the ball, but in spite of that he was slated to go."

"For what?" Frank wanted to know. "A guy like that..."

"Well, maybe you wouldn't believe it, but it was his breath..."

"Drunk a lot, eh?"

"Not Ed. Never a drop, but most of the time he had a case of halitosis* that would knock you down."

"One of those birds, eh? Didn't he read the Listerine Antiseptic ads. Didn't anybody tip him off?"

"Sure, I tipped him off, but not before he almost got the toss. You see, Ed had to see an awful lot of people—close contact stuff. At first they never said anything about it, but later on that breath of his was getting him in bad with his customers. Finally a few of the crustier ones began to write in, complaining, and at last J. P. himself got on to it."



"You'd think J.P. would say something... a good man like Ed."

"I understand he did, Frank. Maybe he didn't make it plain enough. Anyhow Ed never took a tumble—and his job hanging in the balance."

"Chump!"

"You said it. But there's hundreds like him; suspecting everybody but themselves."

"Well," demanded Frank, "what happened?"

"I got Ed out one night. After a couple of drinks, to give me courage, I let him have the bad news about that breath of his. Told him he better get going on Listerine and keep it up if he wanted to stay on with the firm."

"You certainly didn't pull your punches."

"I certainly didn't. And boy, was he sore at first. And then grateful. Worked my hand up and down like it was a pump handle. Since then you never saw a guy so careful about the impression he makes on others."

Frank nodded. "The last place I worked, they were plenty fussy about that sort of thing. I think every firm



should have a standing order 'Listerine Antiseptic before you call on a customer.' I guess it pays."

"And how! If you think it didn't, just look at Ed; he sure is going places."

**Nobody is immune! Everybody probably has halitosis (bad breath) at some time or other without realizing it. That's the insidious thing about this offensive condition. Sometimes halitosis is due to systemic conditions, but usually and fortunately it is caused, say some authorities, by fermentation of tiny food particles in the mouth. Listerine quickly halts such food fermentation and then overcomes the odors it causes. Your breath becomes sweeter, purer, less likely to offend. Always use Listerine before business and social engagements. Lambert Pharmaceutical Co., St. Louis, Mo.*

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by S. J. E.
(NAME AND ADDRESS
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DECEMBER
1939

VOLUME 13
NUMBER 12

AMAZING STORIES

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Volume XIII
Number 12

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The OBSERVATORY

by THE Editor

NOW that the new war has come, your editor is reminded of the many future war stories he has read and edited. He has watched the developments in Europe and is struck by one thing: Those darned old-fashioned ray guns haven't materialized!

How about it? Here our authors have been telling us again and again of the certain terrors of the next (?) war and of how whole armies will dissolve under a barrage of disintegration, and although the Polish army did seem to dissolve, it wasn't in a mass of putrefaction from the deadly disintegrating ray gun! It was simply sheer force.

But maybe we've missed a few "between the lines" facts. What about those air raids so mysteriously turned back from England and France? It seems silly that they could have wasted all that gasoline just to turn back short of their objective. Hitler really needs to save his gas, or at least get all he can out of what he uses. Can it be that there is such a thing as an ignition stopping ray, or electric gadget that makes further advance over certain territory impossible?

ANOTHER queer thing is the way the allies and their enemies are piling up. Not exactly the way it was depicted by our prophets. The entrance of Soviet Russia on the side of the Nazis is not at all in accordance with the way it "ought" to be.

However, we do give credit to Earl Vincent and Capt. S. P. Meek (it's Major now, we understand) who forecast the mechanized army quite admirably. Science fiction scores again!

Right now, however, your editor is muttering in

his beard—he's hoping no more of AMAZING STORIES' war stories come true! Takes the real threat of their occurrence to show us how horrible it would be! Let's hope the ray guns remain fiction.

BUT to get away from the war, let's discuss some of the stories in this issue. We think we have something there. First, there's the final installment of Ralph Milne Farley's serial, *The Hidden Universe*. You certainly liked the first part, and we know you'll like the last. It's got a real old-fashioned punch. That hidden world idea is a hoot, to our mind. Then there's Don

Wilcox returning once again with a delightful off-trail yarn on a definitely new "trail." He's created a super-modern yarn about a future city that will thrill you. And you'll like Ben Gled. He's a real character.

WHEN you read *Fugitives From Earth* by Bond, you'll be reading a timely story. It's about that "next" war, and how several groups of Earthmen decide to escape the holocaust. We might hint that this is the first (we hope) of a series about the "fugitives" because Bond has something here. We predicted a great future

for this writer, and we were right. He's going to be a prize-copper, if we know our readers!

AND don't miss the sequel to *Battle In The Down*. Wellman always turns out a fine yarn. Which brings us to a bit of gossip we just can't squeak. It seems that Manly has been doing a little (natural) bragging around the Wellman household about his ability as a writer.



Venus never had arms like that, George.
Are you sure we came to the right planet?

See Wellman, "I'm good!" See wife, "So'm I!" And so, the battle is on (on your editor's head!). The result is (and I chuckle at Manly's mortification) Mrs. Wellman, writing under the name of Frances Garfield, has given her husband some stiff competition in this issue with her story *Gulpers Versus Earthworms*. Yessir, there's a writin' family! But in the event you don't exactly see where Manly is mortified, wife got an acceptance on her competitive yarn, while Manly got a reject! Watch out for Frances Garfield! I'll have to reject a yarn by her, I suppose, to keep Manly quiet.

RECENTLY your editor's attention was called to a tiny mite of an animal which is capable of performing some of the miracles that have baffled our scientists for a long time. That little animal is the marine chelmonas.

Now this little creature is "flagellate," and that means simply that it swims by lashing with fine, hairlike arms called flagella. It is barely visible to the naked eye. But a single individual, if it were to be cultured for only a month, would produce a colony whose mass would cover the United States from coast to coast four inches deep! Outside of this, which isn't as unusual as you might believe, the more scientific miracle of being able to produce starch and fat without light is where you really should become amazed. This little creature, properly cultivated, could provide enough starch and fat to supply every person in this country with twenty tons of fat and seventy tons of starch! Wouldn't that solve a wartime food problem?

WE know you all like a good adventure story, and we know you know Otis Adelbert Kline and Henry J. Koslos, science fiction writers par excellence. Now these two are helping lead off with a new sister magazine to AMAZING STORIES. This new addition to the family is SOUTH SEA STORIES. If you enjoy science fiction, then we're sure you'll like the brand of fiction in this new magazine. There's a real surprise in store for you when you pick up the December issue on sale Oct. 20!

BUT that's not the only new member of the family! AIR ADVENTURES appears on the

stands on Oct. 16, and here's a real one for you science fiction fans! You've read stories of the next war in *Amazing*, now read the real thing in *AIR ADVENTURES*. It's a new streamlined air-fiction book with modern air-war stories, modern commercial stories, and the most up-to-date treatment you've seen in any fiction magazine. It has a line-up of stories and features that rival *AMAZING STORIES* in quality. Why not pick up this first issue and take a glance at the newest brother in *Amazing's* growing clan?

REMINISCENT of medieval augury is the newest discovery in medical diagnosis. It makes it possible to tell what disease a patient is suffering from by examining a drop of his blood!

As though performing some dark ritual, the doctor takes a single drop of blood from the patient's finger, mixes it with a strange looking substance. But he has merely added copper chloride to cause crystallization. Examining these crystals under the microscope, he can determine the patient's disease from the pattern they form!

Each disease has a different pattern. And it seems even more suggestive of magic arts when we discover that the sign of the dreadfully White Death, tuberculosis, is a Maltese Cross!

EANDO BINDER, sojourning in Chicago for a short while, put the finishing touches on another

Adam Link story, and you'll be reading it in the January issue, along with Nelson S. Bond's first installment of "Sons of the Deluge." Which means a sensational issue to start off the 1940 season!

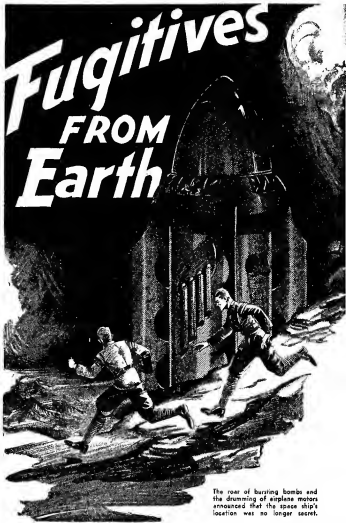
In the discussions column this month you'll notice a letter concerning a science fiction convention in Chicago in 1940. May your editors drop the slight hint that they'll be right behind this worthy movement, and will help all we can to make the event a great success? We'll be glad to cooperate with the group handling the convention affairs. If any of you readers have anything to do or say, just let your editor know. He'll be glad to receive ideas and pass them on to the committee.

WITH which hint we'll close up shop for this month to return in 30 days with more of the same.—*Rep.*



Shucks, I'm going right by. Wonder if the professor meant put on the brakes when he said decelerate.

Fugitives FROM Earth



The roar of bursting bombs and the drumming of airplane motors announced that the space ship's location was no longer secret.



BY NELSON S. BOND

Two pitiful space ships flee the war-holocaust of 1939. But because enemy bombers found their hiding place the American ship had to take off too soon, and out in space she missed a rendezvous with her destination.

HE circled twice above the tiny field, blinking his landing lights in the approved signal. Then, as a faint oval of flares illuminated the desert hollow cupped in the breasts of the towering mountains, he cut the gun and rolled in to a smooth three-point landing.

He slid back the cockpit shield and breathed deeply; grateful for the thin, cool breeze that swept the stench of castor oil and gasoline from the cabin. He yawned, stretched lazily. A long, slow, catlike movement that relaxed stiffened muscles and erased fatigue from his flight-weary brain.

Then he clambered down from the

cockpit. But there was someone beside the plane. A pencil of light blinded him, and a voice demanded, "Who goes there?"

He laughed. "Ah, the ubiquitous Murphy! Always on deck, aren't you, Murph?"

Murphy said, relievedly, "Welcome back, Dr. Thorpe. Sure, I'm always on deck. Somebody's got to be. The government planes have been snoopin' around a lot lately. What did you learn? Is everything fixed? Are we really goin'?"

Young Dr. Thorpe—"Doctor Hank" to the little band of desert conspirators—nodded. "Yes. You'll hear about it

later, Murph. Is Dr. Wrenn below?"

"He is that."

"Good. Get the plane out of sight, Murph. And turn the field lights off."

He strode across the gritty carpet of desert sands to the tiny, ramshackle hovel, pushed open the door and entered. It was a typical squatter's shack; ill-kept and crudely furnished. The rough plank flooring gaped unevenly, and frayed shutters sagged from dessicated moldings. A fireplace in one corner was grimy with smoke from a thousand roughly prepared meals.

There were but three pieces of furniture. A rickety table, an even more rickety chair, a bed heaped with touseled blankets. It was—or so, at least, it had seemed to the detachment of Government scouts who had scanned this area in a search for wartime "slackers"—nothing but a desert rat's abandoned shanty.

Hank Thorpe knew better. At the fireplace he moved a rusty spit this way; a loose brick the other—then stood back. The mantel swung out out noiselessly, revealing a lighted corridor that sloped downward. Hank stepped into the aperture. As the portal closed behind him, he heard the faint throb of motors. That would be Murphy wheeling the airplane into its hiding place.

He met no one in the corridor. But as he descended into this lighted catacomb he and his associates had carved out of the bowels of Arizona he heard, increasingly loud, the clamor of metal beating upon metal, the high, thin whining of dynamos, the *chuck-a-lack-a-chuck* of rivets scorching through reluctant steel. And he smiled, but his smile was a thoughtful one.

And at last he was before the office of Dr. Frazier Wrenn. He knocked and entered. The old scientist looked up; started to come to his feet. Hank stopped him.

"Please, sir," he said.

Wrenn's faded blue eyes searched his face hopefully.

"It is decided, Hank?" he asked.

"It is decided, sir."

"And—the time?"

"Tomorrow. At one thirty-two Greenwich."

Wrenn's breath expelled in a sound suspiciously like a sigh. His long, thin fingers clenched, unclenched; templated in a decisive gesture.

"Tomorrow," he repeated, "at one thirty-two."

"Our ship—" Hank hesitated. It is ready?"

Wrenn nodded. "It has been ready and provisioned for the past week. The workmen are finishing the superstructure of the escape frames now. And von Adlund's companions? Are they prepared?"

Doctor Hank smiled thinly. "Even better than we, sir. You see, they have not had to conduct their experiments and build their ship in secrecy. Their escape frame is completed. Their ship is mounted in the frame on the *Raketenflugplatz*, ready for flight."

"And their authorities do not suspect?"

"Von Adlund says no. Their government believes he is creating a new weapon with which to carry on the war."

The older man nodded somberly.

"The war. Always the war. Were it not for that—" The winnowed chaff of hope was in his voice. "Hank, tell me! Is there no hope? Did you see nothing, hear nothing, which might lead to believe the war may end? That our flight may prove unnecessary?"

Hank's voice was bitter. "I met Moeller, von Adlund's assistant, at our rendezvous on St. Marklin's Island. I flew across three thousand miles of land, half as many of water, to reach the meeting place. And I saw nothing in

all those miles but marching troops, mobilizing troops, cities under military control, fleets steaming headlong to battle.

"Moeller saw worse. He saw Europe bathed in a hell of man's making. Trenches etched across the heart of a ravaged land. Warfleets bombing helpless cities from the air and from the sea. Fire and death and destruction riding on steelclad hooves."

He shook his head. "No, Dr. Wrenn. Hope is dead."

Wrenn corrected gravely, "No, Hank. The world that gave us birth is destroying itself. This is the Armageddon. But hope is not dead. Out there—" he made a sweeping gesture skyward. "We seek another world; another home, where our few remnants of a once sane and glorious civilization will save Earth's knowledge and culture—until Earth's insanity is past." He roused himself. "One thirty-two, you said? That leaves us little time. I must tell the others."

He walked to the door. But before he could touch it, it swung open and a girl entered. A girl whose femininity suffered nothing because she was clad in dungarees, or because her rich, chestnut hair was gathered loosely beneath a scarf.

"Daddy," said the girl, "Henshaw wants to know—" Then, "Hank!" she cried. And with the cry she was in Hank's arms; her hands seeking his hands, her lips finding his. I was afraid — But you are back! And safe!"

Dr. Wrenn, smiling, slipped quietly out of the room. Hank Thorpe held the girl close to him. "Yes, Brenda. I'm back. Back in time to begin the greatest adventure of all."

Brenda Wrenn's eyes widened, and her hands, on the young physicist's lapels, were suddenly rigid.

"Then it is decided?" she whispered.

"Yes. You're not afraid?"

"Afraid?" she shook her head. "A little, perhaps. It is so—so tremendous an undertaking. So daring. But I have you. And Daddy. No, Hank—I think I'm not afraid."

Hank laughed. "Good. Then let's go listen to your dad while he tells the others."

THE great pit was strangely solemn now that the interminable din had halted. The jury-rigged floodlights did not probe every corner of the artificial cavern. Slantwise shadows formed pools of dark mystery.

In the very center of the pit stood a huge, bullet-shaped object. More than 200 tons of welded duralumin and *permalloy* comprised its gigantic shell. Inside were accommodations for fifty passengers; dining hall, meeting rooms, engine chambers and twin control turrets.

The gleaming monster, braced in its exoskeleton of girders, dwarfed the two-score men and women who stood about it. But in dwarfing them, it did not rob them of dignity. There were no weaklings in this group. Intelligence shone in their eyes; pride and courage was in their bearing. If their hands had been coarsened by months of Titanic labor, their souls had been strengthened in that same crucible.

Of all a mad world, these few were sane. Theirs was a purpose aimed at something higher than slaughter and destruction. They stood patiently, now, waiting the message their leader brought them.

"Dr. Thorpe," said Frazier Wrenn quietly, "has come back to us. As you all know, he and von Adlund's assistant, Heinrich Moeller, made this final *rendezvous* to determine, once and for all, if our two groups must go through with our plan."

He paused. So long that one of the listeners said, at last, "And the result, Dr. Wrenn?"

"We go," said Wrenn. "Herr Doktor von Adlund's estimates prove the same as mine. The hour of departure will be one thirty-two, Greenwich time—tonight!"

There was a faint stir amongst the listeners. One voice raised in a cheer, but the sound died swiftly, embarrassedly. A brawny man, stripped to the waist, said, "Then there is no time to waste. Drane and I must finish the cradle. Henshaw's wiring is not completed—"

"Wait!" said Dr. Wrenn. "A moment more, before we return to our tasks—" He chose his words carefully. "It is a great thing we are about to attempt. Men have dreamed of the conquest of the stars for centuries. None thought that, when it came, it would come as the result of crushing pressure brought to bear by a maddened outside world.

"Three years ago, a tiny spark ignited in the Polish Corridor a conflagration which engulfed every nation on Earth. Six months after the commencement of hostilities, we Americans were drawn into the fray—just as every logical diplomat knew, from the first, we must be.

"Those military geniuses who predicted that a war of the future would be swift, bloody and decisive, proved to be wrong on all save the second point. They forgot that as soon as one nation achieves a 'perfect weapon', its enemy's science will evolve a 'perfect defense.'

"Thus, this war has pursued its bloody course for three long years. The losses on both sides have been tremendous. Our enemies have called mere children, the classes of 1929 and '30, to arms. Even we here in 'isolated' America have experienced three ruthless, sweeping 'drafts' which have bled the country of its finest young manhood.

"And the war continues. There is no end in sight; no victory for either side. We *know*, now, that this war can not end until—" The aged leader's voice choked. "Until man who took thousands of years to climb up out of savagery, has fallen back to the pitiable state of his ancestors."

Someone reminded gently, "We know this, Dr. Wrenn. Why remind us of these horrors?"

"Because," said the old doctor, "there is one thing we must pledge ourselves to leave behind us when we make attempt to escape our doomed Earth in this rocket-ship.

"That thing is—national pride. Race loyalty.

"It is a jest of the gods that the only other group of humans who deplore this war as we do, who are planning an escape similar to ours—is a group of the 'enemy'!

"On the *Raketenflugplatz* in Berlin, tonight a group of men and women like yourselves, working under the guidance of the great scientist, Herr Doktor Eric von Adlund, will be counting the moments to 1.32, just as you will be.

"Like us, they are daring the cosmos in order that a portion of humanity may flee to our neighboring planet, Venus, there to protect man's heritage until the time comes when sane men shall re-people the earth.

"I bid you forget, from the moment you set foot in the *Goddard*, that those in the *Oberth* spring from different stock from yourselves. Remember only that the science of each group made this attempt possible. Just as we gave our allies the formula for *permolloy*, which protects our ships from the hazards of space, so did they give us the secret of sub-atomic power. We are friends, interdependent, each on the other. When we meet on Venus, 146 days hence, let it be as one people united in

one single common cause.

"That is all. And now to your work, for the time is short."

Quietly, almost somberly, the group of listeners melted away; each going to his own task. Once again the dry whine of the dynamos filled the pit. The hammering recommenced. The hiss of an electric welder undertoned the voices of busy workers. Young Dr. Thorpe looked at his wrist watch.

"One thirty-two A. M., Greenwich," he said. "Seven hours difference. That means we leave at 6.32 our time."

"You landed when?" asked Brenda.

"Just before dawn. It is 7.20 now."

"Less than twelve hours," said the girl. "And then we leave—"

"To seek," said Doctor Hank softly, "a new world. . . ."

AT eleven o'clock in the morning, Hank and Dr. Wrenn finished checking the supply list for the *Goddard*. Looking at Hank's drawn face and dark-circled eyes, Wrenn suggested, "I'd recommend a couple hours sleep for you, young man."

"But there's so much to be done!" protested Hank.

"Nothing," said Wrenn, "that Brenda and I can't take care of. Run along."

So Hank sought his cot, and slept soundly until at 3.15, he awakened to find Joey Murphy tugging at his sleeve.

"Doc Wrenn says come grab some grub," said Murphy. "The *Goddard's* loaded, an' we're all just waitin' for take-off time. Hungry?"

"Little bit," admitted Hank. "How's everything up topside?"

"Laney's standin' guard," frowned Murphy. "There was another one of them damn' Government planes snoopin' around about an hour ago. I thought for a minute the pilot seen me. I was crossin' from the cabin to the hangar. But he went away again. Guess he

didn't—" He stopped, flushing. "Guess I oughtn't to cuss out my own country," he admitted guiltily.

Hank knew how the man felt. At times his conscience troubled him with the thought that here, in this time of national crisis, every able-bodied man should rally to the flag's defense. Then sane logic assured him that his present course was right. If blind mankind were to destroy itself, as it was threatening, there had to be *someone* to carry the torch—

"Let's go find Dr. Wrenn, Murph," he said kindly.

At four o'clock, the final preparation had been completed. At five, the fugitives were restless with anticipation. At six, Dr. Wrenn relieved the strain; gave orders to man the *Goddard*. The forty-odd comrades filed into the airlock. There remained only the watchman in the desert above.

"You're sure we can blast free?" Hank asked, staring at the roof of the cavern. "That roof looks mighty thick."

"You saw the sub-atomic motors blast this cavern, didn't you, Hank?" replied the aged leader quietly. "There will be no trouble. At 6.19 I will fire the forward jets. The roof will crumble around us, but we will be safe inside the *permalloy* hull. And at 6.23—"

"It's 6.11 now," said Hank. "I'll go get Laney."

He left, climbing the slow ramps that led to the desert shack with curiously mingled emotions. Somehow, he wanted to see that sandy floor of Earth once more; look for a last time upon those stark, jagged, crimson mountains.

It might be the last time he would ever see Earth. There was no way of knowing—if ever—Man would come back from Venus. Or if, for that matter, Man would succeed in reaching the damp planet. The trip was so long, so

perilous. Through that dark voyage, it would help to have the memory of Earth's beauties in his heart . . .

But he did not reach the shack. For as he neared the top of the cline, a racing figure burst down the corridor. A shouting, wildly gesticulating figure. Laney. And,

"Go back!" screamed the watchman. "Back, Doc, for God's sake! They've found us!"

"Who?" cried Hank. "What's the matter?"

"The army planes!" panted Laney as he spun Thorpe by the elbow, shoved him toward the pit below. "They must have seen Murphy, guessed there was something going on here. Four bombers are circling the field, getting ready to blow it to hell and gone!"

As if his words had been the signal, there came the first detonation. A booming explosion, echoing waves of thunder through the man-made pit. Air, forced back through the cavern's opening from the desert shack, smashed down the narrow corridor with the force of a driving fist.

It picked the runners up bodily; threw them forward and flat on their faces. Behind them rock and rubble grated as a portion of the corridor caved in. Hank jerked Laney to his feet; screamed, "The ship!" in his ear. But his voice was lost in the bedlam from above.

Another bomb . . . and another. Now that *Goddard* was but yards away. But above, the great domed roof of the cavern had split asunder. A flood of tawny light caught the space-craft dazlingly. Huge stones dropped plummet-like from the gaping hole, missing the two men miraculously. A shower of sand and pebbles stung Hank's head, his shoulders.

The airlock door stood open. Hands reached down to grasp the racers as

still another explosive struck squarely atop the cavern roof. Then they were inside the lock and the door was wheezing shut.

Hank panted, "We—we've got to get out of here! If they make a direct hit, not even *permalloy* will save us—"

But in the main control turret, Dr. Frazier Wrenn had decided that very thing. He had seen the last two of his party find the safety of the ship. His hand touched the buttons on the panel. Current hummed and vibrated. From the forward jets of the ship, twin streaks of fire blasted the torn roof of the pit.

Overhead, a gigantic bombing plane saw that pillar of flame, swung around and swooped low to lay a destructive cordite egg on the metal fledgling it glimpsed below. But that bomb never left its rack. For suddenly there came a deafening roar; a sheet of all-engulfing fire and heat that fused the sands of its desert crater!

And from its subterranean refuge, the *Goddard* rose like a flaming bullet. The eyes of the attackers widened at that incredible speed. On instant their quarry lay beneath them—the next it was a gleaming dot, fast disappearing into the crystal bowl of the sky.

The *Goddard* had taken off!

Where he lay on the floor of the airlock, straining, like those around him, to bear that terrible pressure, young Doctor Hank turned his head laboriously; looked at his wrist watch. And, "Six sixteen!" he cried. "Too early, and—too fast!"

DR. WRENN said, "Gravs on, Bartram!"

"Gravs on, sir!"

"Check momentum?"

"78,200, sir!"

"Very good. Cut motors!"

"Cut motors, sir!" Bartram's hand snapped a switch. Dr. Hank Thorpe,

watching anxiously, tensed himself. He half expected some halt, some break, in the *Goddard's* motion. But he felt nothing. The only difference was in the sound. The humming current had ceased, and where before there had been a constant whine of motors emanating through the speaking tube that connected the control turret with the engine room, now there was silence. Silence save for the voice of the Chief Engineer, David Farnell. Farnell called:

"Motors off, sir?"

"Right, Farnell," answered Dr. Wrenn quietly. "You may send your men off duty, now."

He turned to Hank with a smile. "Well, Hank, we're free wheeling. There's nothing left to do but wait."

"How long, Daddy?" asked Brenda Wrenn. "A hundred and forty-six days— isn't that what you said?"

"That's right, dear." There was a slight hesitancy in the leader's voice. Hank detected the note. He asked,

"Dr. Wrenn, everything's not perfectly right, is it? You're worried. Is it because we got off too soon?"

For a moment, Wrenn studied the young man gravely.

"You and I, Hank," he said finally, "We have never lied to one another, have we?"

"No, sir."

"Then I will tell you. It is best you should know, anyway. For someday you will command this ship; this group. No, Hank—all is not well. The few seconds difference between the established departure time and our actual, hurried start are unimportant. But another thing *does* matter. The fact that, in an effort to blast clear of those bombers, I had to take off with an acceleration two grays greater than I had planned. This gave us an initial velocity which we may never be able to counteract. And that is serious."

Hank said, "I'm not sure I understand, sir."

"Traveling from one planet to another," explained Dr. Wrenn, "is not merely a matter of leaping across the void. In calculating our flight to Venus, we directed our ship not toward the planet itself, but toward that point in space where Venus would be in twenty-one weeks' time.

"We did this with due allowance for initial velocity, momentum in frictionless space, and gravitational attraction of both planets involved, as well as that of the Sun.

"Unfortunately, circumstances forced us to defy our calculations. Thus we are proceeding toward Venus too fast. It is my fear that we may reach our *rendezvous* in space before Venus comes near enough that point to grasp us in her gravitational clutch."

Hank said, frowning, "Then we must slow down somehow!"

"Easier said than done, Hank. Ob, there may come a day, in the future, when men will build spaceships that will curve, wheel, disport themselves in the void as modern planes do in the air. But we are the pioneers of space flight—and we do not know how to do these things.

"We can curve our path—slightly. But for the most part, we are like a bullet a huntsman has fired from his gun. We have established a trajectory and a speed. The rest is in the guidance of universal mechanics."

"But," Hank protested, "can't we brake our speed? I thought that by using the forward rockets—"

"A fallacy, Hank." Wrenn smiled wryly. "Even *permalloy* has a melting point. If we threw braking jets from our forward rockets, traveling at this speed, our nose would melt like hot butter beneath that terrific backwash. No, we can do nothing but sit tight and hope

for the best."

"And the chances?" asked Brenda.
"Even."

Another thought struck Hank. "Von Adlund's ship?" he asked. "Will we know if the *Oberth* got away on schedule?"

"If they did," answered the old scientists slowly, "they are miles behind us. A faint speck in the ether; too small for our telescopes to determine. If we meet the *Oberth* group again, it will be on Venus. And now, Hank, I must begin teaching you all about this ship. For some day you will pass the knowledge on to others . . ."

Thus began weeks of waiting and hoping. To Thorpe, they were weeks of training, too. And because he was busy, time did not weigh heavily on his hands.

He had much to learn. He bent to his task diligently. Life on this ship, where there was neither night nor day, where only meal hours told of the passage of time, flowed by without notice. There were hours of sleeping, hours of eating, hours of schooling under the sage old doctor. There were, too, hours spent with Brenda. These were the happiest of all.

But Hank Thorpe had quite lost track of time. So it came as a shock to him to have Dr. Wrenn one day motion him to the telescope which was part of the control room equipment.

"Do you recognize this, Hank?" asked the old doctor. He fingered the verniers, then stepped from the 'scope. Hank looked. He saw a planet, slightly larger than Venus had been when viewed from Earth through this same telescope. It was a bluish-white globe. High albedo, Hank thought swiftly. And probably dense cloud structure. Then he noticed the smaller dot which hovered beyond and slightly above the planet. And suddenly he knew.

"Earth!" he said. "Earth! But, Doctor—that far? Then we—"

"Yes, Hank. About 33,000,000 miles. These sister planets are nearing inferior conjunction."

"Then—" said Hank wildly, "Then—our trip is almost over! I had not realized. Time must have flown by. I can't believe it!"

"It's true. See for yourself—"

Dr. Wrenn reset the instrument. This time Hank saw that which no Earthly eye had ever seen before. Venus, at a range so short that the instrument could not embrace the entire planet. He was able to see the banked cloud-masses which covered the planet, but he was also able to see that which astronomers on Earth had always dreamed of—the body of the planet itself through occasional rifts in that steamy aura.

He saw water; deep blue and glistening. And green which could only be vegetation. He turned to Wrenn, his eyes shining.

"Then we'll make it!" he shouted. "If we're so near, it *must* draw us in! We'll make it!"

Dr. Wrenn said soberly, "I'm not sure yet, Hank. We have a speed which is slightly greater than the orbital velocity of Venus. And we are a little early for our cosmic appointment. But—there is a chance."

Hank said, "And if we fail?"

"We'll discuss that if it happens. We will know in thirty Earth hours."

THE deadline hours crept by with the lassitude of a prolonged nightmare.

Dr. Wrenn called a conclave of the space venturers in the meeting hall. Optimism prevailed at the meeting. All seemed to feel that since they had come *this* far, the fates would be kind enough to grant them a happy landing. At the dismissal of the meeting they went to

their quarters; began bundling up their belongings for the exodus onto the new world.

Hank confronted Dr. Wrenn seriously.

"I don't understand, Doctor, how we are going to attempt a landing. Some weeks ago you told me it would be suicidal to brake our speed by jetting the forward rockets. If we don't do that—"

"I did not misinform you," Wrenn said. "But there is another way of braking. By means of the *rear* jets."

"Rear jets? But that would increase our speed!"

"No. For first we turn our ship. We can do that, you know. A series of short blasts from either right or left jet. We continue in our ordained course—but we approach the planet *backward*. Since the base is constructed to withstand the fiery blasts, we can brake and land."

Hank said, "But—I don't understand! If that is possible, why didn't we do it weeks ago and make sure we'd approach Venus at the proper time?"

"Because it was too risky then, Hank. The gravitational fields of Earth and Venus are relatively small. But in the system, there is one great attractor whose power must be reckoned with. The Sun. Had we made our turning-braking attempt weeks ago, amateur space-navigators that we are, we might have found ourselves plunging headlong into the Sun.

"I did not dare take that risk—so long as there was a chance our effort might succeed."

"But if it fails?" asked Hank.

"Then I have an alternate plan," said the leader, "which I will explain to you if it is necessary. But, see! Bartram is signalling from the other turret. It is time to start braking!"

The next few hours were filled with activity. The *Goddard* had to be

turned; *base* facing the planet. Then the motors were started for the first time in weeks. Their din was sweet music to Hank's ears. And cautiously, with infinite care, Wrenn gave the orders for the first short releases through the rear rockets.

It was a jolting, a body-shaking, a breathtaking experience for those aboard the *Goddard*. After the first blasts had thrown them to the floor, most of them wisely took to their berths. The men in the engine room worked supported by foot-grips and hand-braces. In the control turrets, the engineers guided the blasting cradled in basket chairs that helped them absorb the shocks.

There was little time for conversation. Such speech as there was had to be confined to orders and acknowledgment of those orders.

"All jets—fire, Farnell!"

"Aye, sir!"

Then the blast. Quivering, shaking, trembling the *Goddard* till it seemed her seams must split, her braces rip like rotten cardboard. But she held up.

And Hank, sweating over the instrument panel as he made hasty course revisions at Dr. Wrenn's brusque commands, asked but once, "Doctor—how near?"

"Nip and tuck! If we feel the tug of her gravity we'll be all right—"

The deadline grew closer and closer. Hank kept one eye fastened to the ship's chronometer as his fingers played over the panel. Dr. Wrenn had computed the zero hour to be 10.17 Earth time—on which the ship operated. Now it was ten—and no attraction yet. Now 10.05. 10.12—

Dr. Wrenn's face was haggard. He had been under a tremendous strain for weeks. Upon him depended the fate of not only these forty-odd men and women, but possibly of all mankind's

culture as well. There was no way of knowing if the German ship had successfully navigated the void. There was no way of knowing if, some 27,000,000 miles beyond, the Earth were now a fire-swept waste of desolation.

Now the crucial hour was here. 10.14, and so far the ship had not felt the lurching seizure which would indicate that the tenuous fingers of Venusian gravity had drawn to the damp planet this tiny mote whirling through space.

"Bartram!" cried Dr. Wrenn. Through the speaking-tube came the response. "Then, 'Fire all jets! And continue firing!'"

It was a desperate resort, but the last one. The *Goddard* had been too early for its appointment in space. And planetary movements were implacable. Only by braking the ship down to the danger point could Wrenn hope to—

The ship rocked and rolled and lurched, as belching jets rammed their reactive force against that forward motion. The momentum needle slowed. But the chronometer's inexorable hand moved on. 10.16 . . . 10.17 . . . still on . . .

"There!" cried Dr. Hank Thorpe suddenly. "Doctor!"

For simultaneously, all aboard had felt the same thing. A sudden, grasping lunge of the ship. A clutch that dragged each of them deeper into his chair. An intensification of the artificial Earth-gravs that made the ship livable.

"It's caught us!" cried Dr. Wrenn joyfully. "Venus has caught us! We—"

Then the words died on his lips, and his face turned ashen. For as swiftly as it had come, that terrible pressure relaxed! And once more the *Goddard* was rocketing on under its own inertia; slipping past the destined meeting-place, plunging on in its own orbit about the sun!

Hank shouted, "Doctor! What is it? Have we—"

Wrenn's face was answer enough. His slow words into the speaking tube were bitter fuel to the fire of disappointment.

"Cut blasts, Farnell!" he ordered quietly. And to Hank and Brenda, who waited, hoping against hope, "Failure! We kept our *rendezvous*—too soon."

LATER, a sober group of fugitives assembled in the *Goddard's* meeting room. It was a sad blow they had suffered. They had seen victory within their grasp. Venus had swum within their ken, but had remained too far away to exert more than a momentary attraction. An attraction which the speed of their flashing craft had overcome.

"We lacked," Dr. Wrenn told them sadly, "but hours. A mere marginal difference, and we would now be setting foot on the soil of our new home. But—" He shrugged.

One of the wondering group asked hesitantly, "Just what does it mean, Dr. Wrenn? Are we doomed to fly on, out of this solar system entirely? Never to return?"

"No." Wrenn turned to Hank. "I told you I had an alternate course plotted. In the event of failure. We will return to Venus."

"Return?" ejaculated Hank. "But you told me—"

"We will return," continued Wrenn, "in the due course of events. When we made our departure from Earth, we established our course as an independent satellite of the mother Sun. We are travelling in an elliptical orbit which intersects the orbits of Venus and Earth at regular intervals. There is nothing we can do, now, but pursue that course for a complete revolution.

"If my figures are right, our path will intersect that of Venus exactly at

the completion of our full orbit. So, you see, our Hegira has not been defeated. It has only been delayed."

"And this next meeting," said Hank. "When will it occur?"

Wrenn smiled wanly. "In a little over two years," he said. "Roughly, twenty-seven months."

Someone gasped. "Twenty-seven months, Doctor! But in that time—"

"There is no danger, my friends. Our engineers allowed for even such a contingency as this. We have an ample food supply aboard. Plenty of air and water manufacturing and purification supplies.

"The journey *could* be tedious. But I do not believe it will prove so to you who are the cream of America's young manhood and womanhood. There are many things you can study, to prepare yourselves for the life to come. Science must be progressed, and here in the vast emptiness of space is your great opportunity."

For a moment the old man paused. Then, "Nor must we neglect the social side of our immured lives. Some few of you are married. Others, I have noticed from time to time, are beginning to think seriously of taking that step. It is right and it is proper that you should do so. As captain of a spaceship, I presume I can assume the same right as that exercised by the captain of an Earth sailing vessel—" He smiled. And there were sidelong glances between many young couples in the auditorium.

But afterward, in the privacy of the turret control room, Hank could not restrain his amusement at what he called the old man's "matchmaking."

"We'll have to change the name of the ship from the *Goddard*," he chuckled, "to the *Wrenn Matrimonial Bureau*."

Wrenn smiled, too. But there was

significance beneath his smile.

"I won't object," he said, "so long as there *are* marriages, Hank. I did not make that suggestion heedlessly. If we are to be the basis of a rejuvenated Earth, the founders of a new world colony, we must adopt the ancient Biblical adage, 'Be fruitful and multiply'."

He looked at Hank; then deliberately at Brenda. Hank gaped awkwardly for a moment. Then, slowly,

"I see what you mean, Doctor. And, as usual, you are right." He turned to the girl. "Brenda, after what your dad has said, this may sound more like an experiment in genetics than a proposal. But I think you've known for a long while how I feel about you. Would you . . . I mean, could we . . ."

Brenda smiled.

"I think it would be very fitting," she said softly, "for the next leader of the expedition to be the first of the new crop of husbands."

So there were marriages aboard the *Goddard*; many of them. And there were long hours of study in the daytime; research in the ship's laboratories; an exchange of knowledge amongst the members of the group. There were deaths. One by accident; one by natural causes. And there were illnesses. Many had complained, even from the beginning of the journey, about a "strange tingling" that coursed through their bodies. In some cases, this had caused a rash. In others—amongst those of naturally fair skin—it caused a sort of "sunburn."

It was not for many months that Dr. Wrenn finally determined the cause of this *malaise* to be cosmic radiation; filtering through the metallic hull of the ship. He bent his vast knowledge to a solution of the problem; discovered an insulating material. Workmen spent weeks in coating the inside of the ship with this new material. And the peri-

odic illness well-nigh disappeared.

Study and play, petty jealousies and social difficulties; these were met with and overcome. Death and illness; these were inevitable. There had been no births as yet—although that was one thing old Dr. Wrenn had been looking forward to with keenest anticipation.

"But perhaps it is just as well," he said one day, "if there be no children born on the ship. It would be more fitting to have our first new arrival make his—or her—appearance on the native soil of Venus. A sort of Twentieth Century Virginia Dare, so to speak."

"And the time," said Dr. Hank Thorpe, "is not far distant now."

"Three more months," sighed his mentor. "It hardly seems possible, does it, Hank? And this time there will be no mistake. I have checked and rechecked my figures. We cannot fail to make a landing."

So the days passed, turning into weeks. And at last the three months were up. Once more the *Goddard* went through its paces. The braking task was in more accomplished hands now. The crew had been astronavigators for more than two years. They went about their tasks coolly, capably. Venus kept its cosmic appointment this time, hastening to meet the *Goddard* at its allotted place as if to atone for that heart-breaking failure twenty-seven months ago.

And at last there came that moment which the space pioneers had awaited so eagerly. The moment when there was a grinding beneath the base of the ship, a rending crash—and silence. And the voice of Dr. Wrenn saying, quietly,

"Cut motors, Farnell. We have landed!"

THE flood of humans who sought the soil of the new planet wasted little time in idle wonderment. It would have

been impossible for them not to have exhibited curiosity at their new surroundings, of course. The first day was taken up with startling discoveries. The joyful discovery, for instance, that Venus *did* have a diurnal revolution; a point which many Earth astronomers had doubted.

The vegetation was all new; all amazingly different. There were strange life-forms to be analyzed. There were no large animals sighted that first day. But the biologists wet their lips with anticipation of many hours of enjoyment ahead of them, classifying the insects, the mollusks, the innumerable strange things their first glimpse disclosed to them.

But they stifled these desires. These things could come later. Now they must build a city. And,

"We must make an immediate search for the von Adlund party," Dr. Frazier Wrenn ordered. "Drane—you and Laney establish a short wave station as soon as possible. Farnell will take a group of three men in the pursuit plane. Start combing the territory to the north. Hank, you and I will head another search party to the south."

So, while the remaining members of the expedition began the staggering task of creating a city out of virgin wilderness, Dr. Wrenn, Hank, Brenda and Pat Henshaw set out on the first of a series of southward trips in search of some sign of the earlier arrivals.

But Venus is a large planet, and all of it appeared to be wild. The search for the Germans was like the search for an airplane in the depths of an aboriginal Earth jungle, only intensified a thousandfold.

Thus the new city—Venus City was the name decided upon—grew apace, and the twin pursuit planes made many, many trips. But the search was fruitless. And then, finally, one day.

"Slow down, Hank!" ordered Dr. Wrenn. Their plane was flying above a valley region never before covered in their trips. While Hank steadied the stick, the other three had been studying the terrain from their portholes.

"See something?" asked Hank.

"I'm not sure yet. Turn around. Go back slowly, toward that little bald knoll."

Hank did so, shrugging. This was not the first time the glimmer of sunlight on a mountain pool had deceived them. It was beginning to look like a bootless search. Even Wrenn admitted that. Their gasoline supply was dwindling. If they found no trace of the other ship soon—

"Daddy!" cried Brenda excitedly. "It is the *Oberth*! I can see it plainly. See, Hank! There!"

Hank looked down, and his heart leaped. Brenda was right. It was the missing *Oberth*. It had landed—but how it had landed! Not upright on its base, as its constructors had planned. On its side. A gaping rent marred the silvery sheen of the sturdy permalloy. It must have been a horrible crash that caused that damage.

"Down, Hank!" pleaded Dr. Wrenn. "You can land in that space?"

But Hank had already nosed the tiny plane down, and was sideslipping into the small clearing. He hit the ground with yardage to spare all around. In an instant, all four were racing across to the broken *Oberth*.

Even as they approached, Hank knew that the quest was in vain. Had anyone survived that crash, there would be a city around the space ship now, just as a crude city was being constructed about the *Goddard*. But this place was desolate. Their cries awakened nothing but echoes from the neighboring hills.

Or no! Something had heard their cries. As they neared the split airlock,

a shadowy creature slipped out of the ship, tossed a fearful look in their direction, then scurried for the safety of the nearby woods. Hank grasped his wife's arm excitedly, shouted, "Brenda! Did you see?"

She had seen. Her arm, beneath his hand, trembled. For the unclad, hairy creature that had escaped was no human. It was more like a monstrous parody on the human form. Its legs were short and bandy; its arms so long that the knuckles scraped the ground as it hobbled away. And its head—Dr. Thorpe, too, shuddered at the memory of that hideous, lolling distortion. And of that bulging, saclike belly.

Then they were at the ship.

"You and Brenda look in the staterooms and the assembly hall," ordered Dr. Wrenn. "Henshaw and I will look in the control cabins and engine room."

They separated. The *Oberth* had been built by the same plans as the *Goddard*. It took the young couple no time to find the rooms they wanted. And even less time to learn the fate of the *Oberth's* ill-starred passengers. . . .

Two years had passed. And, as on Earth, there were microcosms on Venus that disposed of the dead. It was not a pretty sight even now. After the third stateroom had related its mute story, the assembly hall had added its testimony to the tale, Hank took his wife's arm once again, and gently.

"Come away, Brenda," he said. "We know now."

Then he started. For from the forward section of the ship there came the sound of cries, followed by the hark of an automatic!

SPURRED to action, the two raced down the corridor toward the control turret. As they neared the room, the door suddenly burst open. From it spewed not one or two, but a full half

dozen of those hairy monstrosities similar to that which they had seen outside.

Similar, but not quite the same. For even as his hand leaped toward his gun holster, Doctor Hank recognized, with a burst of horror, that this absurd race was defined in only one way; that each member was a variant of an anthropological theme!

Racing down the corridor toward them now was a wild eyed creature which ran on three legs! That stark female in the doorway, who clutched a child to her breast, had four arms. And the child itself was a flaccid-lipped, two-headed monster!

They were tall or short; skeleton-thin or bulbs of bloated fat. But all were frightened. One look at the gun in Hank's hand, and they scampered in a half dozen different directions. Down side corridors, into rooms. One dove out a broken port window, heedless that the ground was a full fifty feet below.

"Daddy!" screamed Brenda. "Henshaw!"

They burst into the turret. And there, with a moan, Brenda dropped to her knees to kneel beside Dr. Wrenn. Henshaw's face was white. He was babbling.

"Those damned — those damned things! The room was full of them. They must have lived here. When we came in, they turned on us like cornered rats. I killed *that* one—" He pointed at a grotesque, sway-backed thing that lay silent on the floor. "—but one of the others hit Dr. Wrenn with a wrench. His head—"

Hank had already seen that wound. Now he was kneeling, inspecting it more closely. He rose, his jaw tight. Brenda said hopefully, fearfully, "Hank—"

"We must get him to Venus City," said Doctor Thorpe grimly. "Immediately. No, Henshaw, I'll take him. You bring *that*. Murgatroyd and the

other doctors will want to see what form of life is pitted against us here."

Henshaw nodded and bent distastefully to the task of lifting the grotesque carcass. Hank took the still form of Dr. Wrenn into his arms, turned and strode mechanically toward the plane. He did not even know there were tears on his cheeks. . . .

DR. MURGATROYD slipped from the room, saw Hank and Brenda, and nodded soberly.

"You may go in now," he said.

Brenda demanded, "Doctor, is he—"

"It won't disturb him, Doctor?" asked Hank.

Murgatroyd shook his head. "Nothing can disturb him now. And—he wants to talk to you."

They entered the bedchamber. Dr. Frazier Wrenn was deathly pale, but his face was composed. Bandages swathed the wound in his head. Bandages, thought Hank with swift bitterness, which were so much wasted lint.

Then Wrenn spoke.

"Brenda," he said. "Hank. I'm glad you came. It is too bad I must leave you now. Just as we were about to do such great things. Such . . . great things."

His voice faded into a whisper. Brenda smothered a sob. Hank said staunchly, "That's nonsense, Doctor. Just a scalp wound. In a week or or so—"

Wrenn silenced him with a small gesture.

"No, Hank. Murgatroyd told me. I made him. Let us not waste time. There are many things I must tell you before I go—" He closed his eyes, as if in so doing he might gain a measure of strength. Then, "Hank, those things we saw in the *Oberth*—"

"We'll hunt them down!" pledged Hank grimly. "We'll destroy every last

one of them. I give you my promise!"

Dr. Wrenn shook his head weakly.

"That is what you must *not* do, Hank. They are your charge; your most sacred obligation. You must protect and defend them at all times. For I know now who—or what—they are.

"Do you remember the radiation that sickened us on the *Goddard*? I should have guessed, when first we analyzed the illness, the grave danger to which we are exposed. For I knew about the Muller experiments on *drosophila*. And I knew that X-ray bombardments had been proven responsible for alteration of the genes."

Hank's eyes widened. He choked, "Do you mean those wild woods things are remnants of—"

"Yes, my boy. Of von Adlund's unhappy expedition. They are those who survived the crash. Somehow, during the *Oberth's* flight, the constant bombardment of cosmic rays must have started an alteration in the genes of the passengers. It caused them to become—those monsters."

"But," protested Hank incredulously, "if seven weeks' exposure wrought that change in *them*, how is that *we*—"

"I do not know, Hank. The ways of the universe are strange. Perhaps it was the insulation we installed. Maybe it was the fact that we were exposed for a vastly longer period, and our bodies adapted themselves to the change slowly.

"I have wondered about that. Wondered, and feared. Tell me, there have been no mutations amongst our folk, have there? You have noticed no physical curiosities amongst our colonists?"

Hank looked at Brenda suddenly. The alarm which beat a tattoo in his heart was mirrored in his eyes. Wrenn intercepted the startled glance. He begged, "Hank—have you seen a change? Tell me. We—we have never

lied to one another, you and I."

Hank forced his head to move from side to side.

"No, Doctor," he said. "There has been no change."

"Good!" sighed Wrenn. His fingers plucked futilely at the sheeting. There was a distant look in his eyes. "I wish," he whispered huskily, "I had been granted one desire. I had hoped to see . . . the first child . . . born in our new home."

Hank's eyes were suddenly misted. Again he looked at Brenda. And into her eyes came a look of understanding. She bent down tenderly.

"Daddy," she choked, "it will help you to know that Hank and I are . . . expecting . . ."

The old man's eyes lighted. Laboriously he turned to Thorpe. "Nothing," he said, "could have made me happier. Behind us, Hank, Earth is dying of the Cancer of war. Here you must build a brave new world. A world based on peace, and love, and understanding. From your loins must spring a new race. Be fruitful . . . and multiply. . . ."

Then he was gone.

For a long moment the two young people stood beside their lost leader silently. Then with infinite gentleness, Hank led Brenda away. She was sobbing uncontrollably, but her tears were tears of self reproach.

"It was cruel and heartless, Hank," she cried, "but I had to tell him that. Had to! He wanted to hear it so badly I had to tell him—"

Dr. Hank Thorpe kissed his wife who, for evermore, would be nothing more than that.

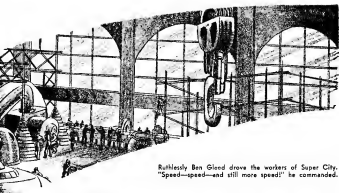
"I am glad you did," he said. "We know, now, why there have been no children born to the passengers of the *Goddard*. It is better that your father never learned that the radiation *did* take its toll of us—all of us are sterile."

BEN GLEED **KING of SPEED**



By DON WILCOX

"No man can stand such a pace,"
said the council. **"You'll ruin Super**
City!" Stung by their words, Ben
Gleed went into feverish action.



Ruthlessly Ben Gleed drove the workers of Super City. "Speed—speed—and still more speed!" he commanded.

CHAPTER I

The Boss Gets Fired

"THIS is a disagreeable task, gentlemen, but we've got to do something about this young race horse we call our city manager! His everlasting speed—speed—speed has gone too far!" The tight lipped man at the head of the table brought his fist down. Several of the directors nodded. Their president spoke on.

"We founded this Super City as a gigantic advertising project for *Efficio, Incorporated*, and we've got to see it through! But we want *good* advertising, not *bad*!"

"Yes!" some of the directors applauded.

"We're the last word in scientific efficiency! The world has its eyes on us. But if the facts about our population turnover ever leak out—heaven help us!" His voice took an ominous tone. "Do you realize, gentlemen, that most of our workers stay less than six months! They can't take it. The pace is inhuman! And still, Ben Gleed isn't satisfied!"

President Birch lowered his voice. "I wouldn't for a minute belittle the fine work Gleed has done. He has worked wonders. No other city manager could have rushed our ten year program through in five years. But gentlemen, you can't slow that man up! We've tried—everyone of us. He's all speed and no mercy! The heat he puts on our supervisors—actually it scares me! Where's it going to end?"

The board of directors sat frozen, but the answer was obvious. "Gentlemen, we've got to fire that man!"

A moment's silence, then the members voiced their agreement. No one dissented.

"When do we fire him?" someone asked.

"Today!" said President Birch.

"I hate to fire a man on such short notice," someone protested.

"Man? He's no man!" said another. "He's a *machine*!"

Echoes of their talk carried to the next office. Lucille, a pretty stenographer, grew weak as the shocking news struck home. Her fingers stiffened over the silent keys. Though no one knew it, Ben Gleed was her hero of heroes.

The instant her typing stopped, a brittle automatic voice spoke. "Don't waste time! . . . Don't waste time! . . . Don't—" That was one of Ben Gleed's efficiency devices. Angry, dazed, she groped for the keys. So they were going to fire him!

President Birch's voice came through a speaker. "Ask Mr. Gleed to step in before he leaves for the day."

Fire him because he'd done his work too well! Of all the ungrateful—"Don't waste time! . . . Don't waste time! . . ." The automatic voice failed to bring her out of her dizziness.

A door flew open and Ben Gleed strode in. Impulsively she sprang up, caught him by the arm.

"Mr. Gleed! Mr. Glee—"

He whirled about and pulverized her with his glare. His piercing eyes turned from her frightened face to her hands that clutched his coat sleeve. She apologized and backed away.

"Back to your typing!" he ordered with a toss of his handsome head. "You're losing time!"

"But Ben, they're going to—" She caught herself too late. Ben! No one called him that. A fatal tongue-slip that proved her hidden devotion to this dynamic young executive.

His eyes widened. "Have you gone crazy?" He seized her by the arm and pushed her back into her chair. "You've a good job—one of the best in Super City. Hold it. Don't go off on any romantic tangents. They're foolish and fatal."

The girl faced him ablaze with resentment—and pity! He'd coast into his crash unwarned. "President Birch wishes to see you before you leave," she said weakly.

He made a cognizant gesture. "I want to speak to the duds first. How many do we deport today?"

"Thirteen."

IN another room he faced thirteen fatigued, dejected looking creatures—"duds"—who stared sullenly.

"It's the King of Speed himself!" someone whispered.

Gleed spoke briefly, coldly. "You understand the circumstances. Super City sets the pace for the world. We demand efficient man-power. We're forced to deport you because you're too slow."

One man's flushed face showed angry tears. A big framed, hard looking fellow spoke up in a fighting voice. "Slow! I'd like to see you run that machine that I—"

"Save your whimpering," the King of Speed cut in. "We've no sympathy for weakness here. Keep your sentiments till you get out of Super City. Then be careful how you talk. Don't blame the machines. Blame yourselves. You've never worked to capacity. Go back and plow yourselves under. You've shot your wad and missed the mark. Super City is through with you. That's all."

He whisked about and started off.

"Wait a minute!" the big belligerent man roared, starting after him with many heavy fists. "That stuff don't go with me! You can't tell me I missed the mark, steppin' that machine up a notch on me every day! I'd like to see you—"

Ben Gleed turned, fists on his hips, and approached the big man with such a dynamic front that the challenger stopped, shrank back.

"You'd like to see me run that machine!" The King of Speed smiled. "I wish I had the time—I'd show you how it's done. You and everyone else like you. There's not a job in this city that I couldn't take over and run faster than it's run today. Why? Because I've trained myself in the science of speed! That's why I'm where I am. Think it

over, my good friend."

Ben Gleed strode out like proud dynamite that knew exactly where it was going. A minute later he walked into a surprise explosion.

Lucille saw him enter the directors' room, heard President Birch address him, felt the thunderbolt strike. It struck hard. Then came the rebound. Ben Gleed struck back with every ounce of his ego.

"You say I'm through. I carried speed too far. I burn out the workers too fast! All right, I'm through! But you're all wet, and I'll prove it! I'll register for a common job—any job in Super City—and I'll bet my reputation I can outspeed the job! I'll work my way back to the top in no time!"

The proposition evoked puzzled mumblings. "It's customary to deport persons who have been discharged," said one of the directors.

"You've no right to deport me!" Gleed declared. "That disgrace is for those that can't keep pace!"

"Very well," said Birch. "If you wish to stay in Super City and face the embarrassment—"

"Embarrassment, hell!" Gleed sputtered. "Nothing can embarrass me. I may not be the city manager but I'm still the King of Speed, and I'll have the sweet satisfaction of proving it on the fastest jobs in the world."

The directors filed out. Ben Gleed stood alone. He had hurdled the explosion, but the shock left him dizzy. He gazed from the window without seeing the silent smokeless factories that lay before him.

He was only half conscious that a pretty girl crept close to his side, said kind words to him, almost kissed him in her forgetful sympathy—all to the accompaniment of familiar echoes from her deserted typewriter—the automatic voice that rattled, "Don't waste time!"

... Don't waste time! ..."

CHAPTER II

SX333 Goes to Work

GLOWING with determination, Ben Gleed registered at the employment office. "Find me a good stiff job, Blasco! I'm going to show the boys how it's done!"

Blasco's eyebrows jumped but he didn't quibble. The signed order from the board of directors was plain: the King of Speed was out on his own.

"Here's your card," said Blasco. "Henceforth you are simply SX333 to us. There's temporary work with a paint squad until I find you a permanent location. No need for me to explain our work regulations," the official grinned, "since you made them yourself."

The painter's scaffold was an Efficio product. It raised and lowered at the touch of a lever, and the paint gun was mounted on it. The old fashioned ladder, bucket, and brush were unknown in Super City.

News cameras clicked as the King of Speed stepped aboard, touched the lever, lifted to the top of the wall, turned the paint gun on the surfaces. Reporters cried questions up at him, but he played deaf. The way to get the best news story was to demonstrate speed, not talk.

For five days he maintained such a killing pace that every technician on the squad writhed under the pressure. Then the regular paint gun operator returned. Ben was through. Blasco sent him notice that soon his regular job would be ready.

The metropolitan newspapers gloated. The fastest city in the world had tossed Ben Gleed overboard on some unknown pretext, and what a come-

back! The self-styled King of Speed was obviously out to show the world that personal efficiency knows no limits.

Employees of Efficio, Incorporated snorted. As if it wasn't enough for Gleed to force his program on them, the speed demon would terrorize them with his personal competition.

However, Blasco and the directors took Gleed's victory on the scaffold with a grain of salt. They knew that this particular paint squad was the slowest work unit in the city. The test of Ben Gleed's self-assumed title was yet to come.

The hero of speed took a week's vacation, then returned to Super City to find two surprises awaiting him at his new living quarters: his appointment from Blasco, and a visitor—his father.

Earlier in the afternoon John Gleed had arrived for his first glimpse of the world famed city. He blinked through his spectacles at the towering metallic buildings, the swift flowing blue buses, the profusion of work uniforms.

He sought out the city offices and found Lucille.

"I'm looking for my boy—Bennie Gleed—you see, I'm his dad," he explained. He adjusted his spectacles and twinkled at the girl. "Gollies, you work here all the time?"

"Certainly, why?" the girl asked, charmed by his genial, rustic manner.

"Glad to know it. You see, Bennie never paid much attention to girls. Always too busy. But maybe with a perty thing like you around, he's changed."

"I'm afraid not, Mr. Gleed, that is—" the girl reddened. "If you're looking for Ben I advise you not to wait. He won't be in."

"Out fer all day?"

"Yes—yes—all day."

John Gleed was less handsome than his son; his nose was a trifle sharper, his jaw less set, his eyes more appreciative.

He caught a note in Lucille's voice that the younger Gleed would have missed. "Look here, girly, what's happened here? You're worried. I never took too much stock in this newspaper talk, but I'm after the facts. Ain't things goin' so smooth with Ben?"

The girl's eyes suddenly grew moist.

"Hm-m-m. I've got a hunch," said the elderly man, "that maybe you—and him—" He stopped as the girl shook her head.

"He doesn't even know I exist," she said.

"Then what's gone wrong, Miss? Let's trust each other and talk this thing over. . . ." His manner won her confidence and she poured out her fears that Ben had leaped into an abyss.

"He's so headstrong and reckless," she sobbed. "He doesn't see where this speed mania has taken him. He thinks he can jump into the fastest jobs, where men are being thrown out and the machines are going faster every day. He's simply walking into his own speed trap—blind! And no one can stop him!"

That evening John Gleed and his surprised son visited over the dinner table. There was an undercurrent of tension.

"You're a big man now, Ben." Constraint rather than pride was in the father's tone. "I knew you'd make the world sit up and take notice some day. But what about this rap your directors gave you?"

"That's their hard luck, not mine. They thought I was moving things too fast."

"Maybe you was, son." The elder Gleed took a clipping from his pocket, a paragraph from a minority journal, which read: "Ben Gleed is inhumane, inhuman, a machine; his slave-driving pace in Super City cannot last; his house is built on sand." "That's why I came here, Ben," said the father. "I was worried about you."

"Foolishness!" The irritated young man cast the clipping aside. "Whoever started that poison theory that workers must be pampered? I claim no human ever worked to his full capacity, and I'm going to prove it. Tomorrow the fireworks begin. I've been appointed to the advertising division, and I'll show the boys some speed!"

EARLY the next morning: "Bling! . . . bling! . . . bling! . . . blik! The King of Speed whirled out of bed and choked off the alarm, then pressed the red button marked "Register."

"What the hell—?" shouted the sleep-shocked John Gleed.

"Electric alarm system," explained the vigorous young man as he jumped under the shower. "All the employees' homes have them. I touched the button so the bureau of records would know what time I got up. Automatic register. Very effective idea, don't you think?"

John Gleed groaned. He was in no condition to appreciate ideas at this hour of the morning. However, he insisted he would accompany his son downtown. "Do I have time for a shoe shine?"

"Get it on the bus," said the master of speed. "Our buses and trains are equipped to serve breakfasts, shine shoes, and shave your face on the way to work."

Downtown they alighted from the bus and stepped onto a moving sidewalk that glided along a busy pedestrian thoroughfare.

"I'll see the city for myself while you're at work," John said, stepping off at a street corner. Ben moved on, with hundreds of others, into one of the great buildings. The father watched him disappear, stood in awe of the swift moving lines of people. On other levels they coasted by on electric roller skates. Above them signboards flashed Super

City propaganda. Every production curve on the rise. No unemployed. No poverty!

"The poverty follows," thought John, blinking at the neons, "after they get kicked out and go back home wrung dry."

"Don't loaf! . . . Don't loiter!" The loud whisper made him turn sharply. It was his son's voice. "Six fifty-five! Don't be late for work!"

The amplified whisper came out of the Effico clock which hung over the street. Every five minutes the Effico clocks hovering over every intersection spoke their recorded messages of hurry, hurry!

"Well, I'll be damned," John Gleed grunted. Already he felt guilty for every minute he squandered.

Ben Gleed presented his appointment notice to a secretary who looked at him and gasped, "My stars, you're the King of—"

"I'm SX3331" Ben snapped. "Where do I work?"

He was placed at a desk and given an assignment to write advertising copy for the Effico products which Super City produced for the world. Pie for him. He knew those products, from table salt to bath tubs to stereotyped sermons, from rat poison to tractors. He'd chill his competitors in no time. He glanced about, noted the strained look of the other writers, men as well as women, who pored over their desks.

Soon a tense whisper sounded through the speaker. "Five hundred words! If you don't have five hundred, speed up!" A good speed-up device, he reflected proudly. And how it worked! Heads went down, pencils flew, typewriters hummed!

Ben glanced at his own efforts. A thrill of surprise took him. He had less than two hundred words. He buckled down, worked like fury.

"A thousand words!" came the great whisper. "Write faster. Don't get behind!"

A cold sweat broke out over Ben's body. His mind shot off on wild tangents. Then the ideas began to jump off his typewriter keys.

"Fifteen hundred! Faster! Faster!"

A tray of coffee came past. Ben snatched a cup, drank it black, wrote like a demon.

Lunch hour and midday check-up. "SX333, come into the wave room," said a supervisor. "You need more stimulant than coffee." In the designated room an absent-minded laboratory official made a test of Ben's brain waves under concentration, explaining, "This is one of the Speed King's Efficio devices for converting electrical energy into brain power."

He fitted an instrument over SX333's head. "Plug it in and work the rheostat to suit yourself. The electrical waves will synchronize with your own brain waves and reinforce them."

Ben Gleed went back to work. Other copy writers wore similar instruments; nevertheless, one of them snorted, "Well, well, look who's taking brain shots, would you!" Others laughed.

The afternoon flew by. Ben raced savagely. The instrument helped. When the day closed he breathed a victorious sigh. He had more than his quota of words.

However, the next morning there was a note from his copy editor: "SX333—Your work is not acceptable. Too much stress on speed of output. Customers are interested in quality. . . . Your writing poorly organized. Try again today."

The King of Speed clamped the electric stimulator over his head, turned the rheostat on full, and poured forth words and sweat. He choked down black coffee, did not stop for lunch, tried not to

hear the whisper of "Faster! Faster!" But late in the afternoon when the speed-up whisper bore down and one of the women workers screamed out, "For God's sakes, turn that thing off!" and then slumped over her desk in tears, he wasted five good minutes getting his mind back on his work. "Damn weaklings," he muttered to himself. "They can't take the pace! I'll show them."

As he arose for work the following morning, a special delivery note reached him, signed by the head copy editor: "SX333—Your work is unsatisfactory. Sorry. Your discharge has been reported to the employment office."

The King of Speed was stunned. His father, laboring with a necktie, stopped and eyed him. "What's up, Ben?"

"Day off," he mumbled.

CHAPTER III

On a Toboggan

AFTERNOON found the elder Gleed restless. He couldn't feel at ease in this world of speed. His son seemed too pent up about something to enjoy his day off, so the father sought his own diversion. He found a barber shop which, he thought, would be good for an idle hour.

The barber clamped a metal helmet over his head, adjusted the numerous buttons over its surface, turned an electric switch. The surprised customer felt a momentary suction over his head; the next instant the barber removed the helmet and behold, the job was done.

"I hope I didn't detain you too long," said the barber as the door automatically opened for John. He groaned and went. Then a thought struck him and he walked into the first open door, a drug store by chance.

"Say, friend, are there any movies in this city?"

The uniformed employee told him of the continuous educational feature depicting the industries of Super City and the uses of Efficio products. "However, if you want entertainment—"

"By gollyies, yes!" said John Gleed.

"Then here's a movie substitute that the King of Speed has recommended very highly to the people of Super City." He held forth a small box of orange colored pills.

"Substitute? How the hell—?"

"His theory is that many people remember so little of what they see at the movie that they are as well satisfied by a chemically produced effect. Thus they save the time and cost—"

"You mean—?"

"Swallow a pill and you'll see. For an hour you'll feel a gathering tension throughout your body, with now and then a surprise laugh; then when your anxiety is up to a fever pitch, all at once every thing smooths out, and you get that pleasant tired feeling that always comes when the fellow finally kisses the girl. . . . Or try one of these larger pills if you prefer double features."

"No, thanks!" John Gleed shouted as he hounded out the door.

Alone in his apartment, the feverish young King of Speed paced, waited for his radio-facsimile receiver to bring the evening news. He was on a spot. By this time the nation's press services doubtless knew of his stinging defeat.

The radio buzzed. Layer by layer, the headlines printed off.

"KING OF SPEED FIRED."

"Publicity Job Too Fast For Gleed."

"Super City, Oct. 4—While the directors of Efficio, Incorporated searched for a new city manager to modify Ben Gleed's speed-up program, the de-throned speed king cracked up on his own speedway today. He was fired as slow and incompetent. . . ."

Ben's eyes swam in rage. Dodging the reporters who swarmed his front door, he slipped out into the semi-darkness on his electric roller skates and swung down the thoroughfare, trying to throw off his furious energy.

Damned fickle newscasts! As if one discharge meant anything. His efficiency fight was just begun. Tomorrow he would take his new job and blast this incident to ether.

He skated on like a madman—and whom should he pass but Lucille and his own father—loxy old cuss! They chattered by so merrily they didn't even see him. His fever jumped. Frivolity always stung him.

His tortured mind clung to Lucille—her warm words when the directors rapped him—and before that, her admiring eyes on him as he stormed about the city offices. He blacked out the thoughts.

Early the next morning he punched a new time clock. He was a research man for Efficio Information Service—the world's most efficient, most unique library. The research workers rode up and down among the walls of books and filing cabinets in lithe metal desk cars, like marbles chasing through an upright maze.

The eager King of Speed donned a brain stimulator, glanced at his assignments, mounted a car, sailed up the wall, and delved into the cases.

A fresh label on his desk disturbed his eye. Its red letters mocked him. "Research Workers Notice: The rising demand for Efficio Information Service necessitates a four week speed-up campaign, with higher standards for each worker as follows . . . (Ben remembered them. He had forced them upon the directors.) . . . Our nationwide customers, whose orders we deliver by facsimile, demand almost instantaneous service. Our new time schedules are

now in effect: Professor's lectures prepared, ready for reading, within an hour after call. Cases briefed for lawyers, 15 minutes each. Sermons, plain, 10 minutes; fancy, 20 minutes. Book reviews, 5 minutes. Translations on 24-hour notice. . . ." Etc.

Ben's eye jumped to the final item, which he remembered as his magnanimous concession to workers under pressure: "Five minute rest period every two hours—with *calisthenics*."

Before the day was half gone, he welcomed those five minute periods of "one-two—up-down!" Today he had a fighting chance to blot out his defeat. Tomorrow he would set a new mark.

Charged with hope, he zipped from stack to stack. He didn't flinch under the speed-up whisper as some workers did. That girl with the trembling lips, for instance.

A curious tragedy befell her at the mid-afternoon calisthenics period. She didn't hear the signal to go back to work; instead, her calisthenics went into a crazed dance and she refused to stop until a doctor arrived to take her away. The pitiful picture hung in Ben's mind.

However, a tragedy of his own was in store. It came with the day's final spurt. Although the wall-scaling mechanisms were replete with safety devices, Ben, in a burst of energy following his exercise, found the weak link. Sliding into his desk car, he jammed at a lever, snapped it off clean. With a whiz he rocketed up toward the lofty ceiling too fast, flew the vertical tracks, and plummeted to the floor, car and all.

The crash might easily have been fatal.

Fortunately, as he later learned in the hospital, he got off with cuts and bruises.

Between his painful injuries and the no less caustic jibes of newspapers, Ben

Gleed spent a miserable week. Editors from Maine to California wisecracked him, and some dubious friend gathered their venom into a scrapbook for him to convalesce upon. He spent his waking hours inventing profanity.

Lucille came to see him once. That was the only bright spot in the whole affair, and he was too stubborn to tell her so. He warmed up to only one theme: his determination to get back to work and show them!

However, after he removed his last sticky bandage, rolled up his sleeves, and went back for more high pressure jobs—and flunked three in a row—flat!—the world turned very dark for the King of Speed.

CHAPTER IV

"He Can't Take It!"

HIS father counselled, Lucille pleaded, the newscasters roared. The employees of Eficio, Incorporated opened their eyes. If that human machine couldn't take it, why should they? Some began to let down; some quit outright and were deported. Supervisors wobbled on policies. A few defied the speed-up program; many whipped their faithful workers into faster action. Production suffered, inevitably, and the directors went into a psychological panic.

Ben Gleed held to his one mad theme: he wanted work; he was still determined to prove his speed.

"Why don't you forget it?" Blasco advised. "You're an executive, not a workman. No executive gains by competing out of his field."

"Give me another job!" said Ben.

"The directors are talking of deporting you—"

"They can't deport me until I've gone through ten positions. That's the rule.

Give me a job!"

"All right, all right," said Blasco. "We need a new spy-and-spur man for Foundry D. It's a tough spot and you know it, but—"

Ben knew. As city manager he had watched the tank makers and radiator men grow callous to the booming speed-up voice. He had instituted the conveyor belts and the spy-and-spur system as remedies.

Now he reported to Robone, the hard bitten little supervisor, who gave him the keys to the spy-and-spur tower.

"The devils are always laggin', Gleed," said Robone. "They need that personal kick in the pants, and plenty of it."

Ben closed out the rhythmic batter of the machines and set to work. Touching each switch in order, he brought one row of workers after another into view in the rectangular screen before him, studied each individual, made note of the slow ones. At the lunch hour he summoned his chosen ones through the speakers, ordered them into the "oven." Here his face appeared before them on a screen. He looked them in the eyes individually as he roasted them for their faults. Under this arrangement no one could talk back.

Not audibly, that is. But their lips could move. By the second day he lip-read their defiance. They knew him, and everyone of them snarled back something—he couldn't get it all at first. The shorter retorts, such as "Go to hell!" were understandable enough, but it took him another day to catch that longer expression so many of them gave him; "Yeah? You can dish it out but you can't take it!"

Ten days later he took it! Other jobs had slipped through his hands in the meantime, and now—his next-to-the-last chance—he himself stood on

the dreaded conveyor line, a tank maker.

The clang of metal was deafening. The overtones of the machines had stepped up in pitch during his absence.

Seven strokes of the fists on the rivet lever. The eighth beat was a rest while the tanks shifted. It was almost completely a machine job, but that extra human urge was demanded—with almost trip-hammer rapidity.

"Use both hands, or you'll wear out sure!" the big fellow next to him warned for the third time.

Right! Left! Right! Left! Right! Left! Right! Breathe—! Over again! Again! Again! . . .

"Hit 'em hard!" Every light blow was a lost rivet, a faulty tank, a bawling out.

The big guy was a pal. Several times he reached over to save Ben's final stroke that went too light. His arms were long and swift. His face, hard and twisted with tension. Where had Ben seen that face before?

Near the rest pause Ben had staggered, feared he would faint off. The big fellow had to come to the rescue too often. It was a crime to let him do double duty that way. Ben didn't have to be called into the oven to be told that.

In the next few days he was called in so often he grew sick of the spy-and-spur's ugly face. And Robone, the supervisor, how he hated that little tyrant!

He finally remembered who this big fellow was that worked beside him, vividly recalled his words: "I'd like to see you run that machine that I run!"

The big fellow grinned at the mention of their former meeting. "I was deported, all right," he said, "but they found I had some work merits they'd overlooked, so they let me come back. . . . I never sposed I'd see you here.

... I gotta hand it to you, you're puttin' up a scrap. You can take it!"

Those were the last words the big fellow spoke. Lunch over, the machine bombardment cut loose again, with overtones a shade higher. The big boy was a goer. Bad for a fellow with a weak heart like his to hang on so doggedly.

When he suddenly toppled, Ben dropped to his side, tore his collar open. The man's final gasp was inaudible against the clangor.

Robone rushed up, showing an angry face. "Back to your machines till we cut 'em off!"

Ben never moved or heard.

"Back! What the hell's the matter with you? He ain't the first guy that's ever died in the harness."

Ben seized the little supervisor by the belt and hurled him across the floor without realizing he so much as touched him.

BEFORE the King of Speed returned to Blasco, he paused before a mirror to stare defeat in the face. What a mess. And yet, in spite of all that had happened, he still wanted to believe there were no limits to the work a man could do.

Here was Super City—he'd put years of thought into it, given it all the finest scientific improvements. It ought to work. It had to work! It *would* work if it could have men who were up to it! The machines could go faster; why couldn't the men? But what of himself?

He eyed himself more closely, half aware of the blind spot his wishful thinking slid over. Here he was, rested, fresh, glowing with energy. His resilient nature made him akin to the prize fighter who forgot every knockout and still believed he could whip the world's best in the prize ring.

Had a doctor attempted to diagnose the maniacal gleam in Ben Gleed's eye as he donned work clothes for his last chance, the verdict might have been, "Anything can happen."

John Gleed and Lucille saw it happen.

It was Lucille's half day off and the elderly man met her downtown for a mid-afternoon lunch. Across the table in one corner of a low, sunny roof garden they discussed Ben's tragic fall. There was no ray of hope. The whole bitter affair was a boomerang. The proud young executive had figuratively slain himself.

The coarse singing voices of a work gang across the street below them demanded their attention. A noisy gang of bricklayers building a wall, singing a rhythmic ditty to punctuate their motions. Whenever their voices died down the supervisor shouted at them. A machine set the tempo—a brick hoist.

It was a tractor-like affair, carrying a hopper full of bricks, sending them up the elevator, one by one, as it crept along the foot of the wall. The supervisor was at the wheel. One of the men on the scaffold back of the growing wall was Ben Gleed.

Lucille caught her breath. John couldn't believe his eyes until he wiped his spectacles. Sure enough, that armored figure catching the bricks off the hoist was his son.

Two stressed motions—catch with one hand, pass on to the next man with the other. Rhythmic as a pendulum.

"It's dangerous the way those bricks leap at him!"

"That's why he's wearing the armor," John Gleed observed.

The brick hoist reached the corner, whirled about, and started back, the scaffold gang with it.

"Gracious! Don't they ever stop for breath?" Lucille gasped.

"I dunno. I've been hearin' that

buzz-wagon for the last hour and a half. Bennie's handled many a brick in that time."

At length a rest pause came. The brick hoist idled softly and the men moped about. Ben rubbed his sore arms, cocked his ears as the Efficio clock from the intersection called to him in his own voice, "Get busy! Get busy! It's three-thirty! Don't loaf your time away."

At five-thirty the spectators still watched, hypnotized.

"There! Another one hit him!" Lucille cried. "Why don't they slow down? Look out!" She wasted her scream against the brick hoist's rumble.

"They're slipping through his hands!" John Gleed muttered. "Ouch! I heard that one clang! That's too damned fast! Why the devil—"

The stream of bricks stopped and the supervisor waved his hand.

"Quitting?" Lucille asked hopefully.

"Not yet. A final rest period," John Gleed observed. "That means they've got the spurt yet to go."

The clock over the intersection spoke in an urgent tone. Ben Gleed mocked Ben Gleed—at a time like this! It was too much. A dangerous moment—and on top of it the supervisor, finished with his drink of water, lit in on Ben for all his errors. The final straw. The armored figure leaped clear of the wall and landed all over the man.

A jerk of the armored shoulders and the amazed supervisor scudded into the street. Then the brick hoist went berserk with the King of Speed at the wheel. The gang looked on, open-mouthed.

Bricks jumped like fleas. The vehicle sputtered around, dashed into the intersection, circled. The whizzing missiles found their mark: the Efficio clock cracked, jumped, and let go a hail of springs and wheels.

Down the street the mad barrage roared, battered buildings, crashed glass, sent pedestrians to cover. Sirens joined the chase and traffic cleared to make way for the fountain of bricks.

CHAPTER V

The Lid Blows Off

"WHY don't they stop him!"

Lucille shrieked. She and the flabbergasted elder Gleed scampered to an elevated walk where they could see farther down the street.

"Stop him? By gollies, they're joinin' him!" John roared. Far down the line the mad chase whipped around a square, started back. "Look at 'em come! A whole streetful! What the hell—?"

John clutched Lucille's hand, they zipped along on a moving sidewalk toward the lofty structure known as the Center, arched over an octagonal park at the midpoint of the city; they chased up the nearest ramp to get a better view. The distant clang and clatter echoed closer.

The structure which dominated the Super City Center resembled the base of the Eiffel Tower without the tower, its feet resting on four building tops that carried elevated streets. The four great ramps of the Center arched upward and converged to support a dome-like building, headquarters of the city. The Floating Dome, as it was popularly called, hovered two hundred feet above the octagonal park, gave the city officials a commanding site from which to govern the domain of Efficio.

At present the directors, assembled in their lofty sanctum, were too busy to notice that several excited citizens scurried up the ramps to the floating plaza outside their windows, crowded one of the rails, pointed and shouted wildly.

The directors were in a sullen deadlock over a crisis. The Great Key lay on the table before them, a three-foot bar of chromium brilliance, symbol of city leadership. Since the ousting of Ben Glead they had been unable to force that key upon anyone. They had combed the nation for a new city manager, but every shrewd applicant who saw the situation gave them the same answer: "The job is too dangerous. You're heading for a revolt."

President Birch writhed before he brought himself to admit that the workers would dare try such a thing. As he now faced the facts every director before him betrayed fright. They sat on the lid of a volcano. If the city should go on a rampage it might mean one of the most rapid and devastating labor outbreaks in history.

"When you consider the terrific physical stamina of our men," President Birch panted, his open hand quivering as he gestured, "not to mention their flexible abilities to leap into any situation—when you consider the high-powered machines that they might turn into instruments of destruction—"

An alarm bell cut him off. Bells clanged throughout the building and the four great ramps to the roof streets. The sergeant-at-arms bellowed a warning. The directors sprang to the windows, dashed out on the plaza, heard a great pandemonium from somewhere below, saw a solid block of marchers mingled with all manner of vehicles and wheeled machines storming toward the heart of the city. Revolt!

FROM the nerve center of the city, officers flashed commands to supervisors, police, utility operators. Many key positions were deserted, however, and telephone service began to go haywire. Uniformed men turned deaf to orders. A wire for state troops went

dead at the telegraph key.

What had happened? Who had uncorked the brewing rebellion? The frenzied directors stared over the railings, watched the rioters flood through the octagonal park two hundred feet beneath them, gathering momentum with every pace. Birch singled out the leader, an athletic figure mounted like a circus rider high on the elevator of a brick hoist, giving cues to his driver, shouting at his mob, shelling off his brickman's armor, hurling it at Efficio signs—no other than Ben Glead!

Birch and his directors were stunned. A revolt they could understand. But a revolt against Ben Glead's speed, led by Ben Glead—this was too much! It involved a sudden psychological flip-flop, a strange quirk in mob behavior that might have caught any professional psychologist below the belt.

Still they came—men in aprons, mechanics brandishing tools, bakers beating on bread pans, typists shrieking through speed-up horns wrenched out of their machines, painters showering their paint guns over building fronts. The lid was off!

Pent up from weeks of maddening speed, wrung to the breaking point, scorching under the pressure of the day's final spurt, thousands kicked out of the traces the instant they saw the Speed King and his mob hail into view.

Ben Glead! A new Ben Glead! The Glead who faced the same high-speed hell they faced, who fought side-by-side with them, even though he was razed from coast to coast. A sportsmanly instinct in them suddenly rallied to him.

Subconsciously their feelings toward him had already undergone a profound change. Those newspaper stories . . . Glead had a father living with him. There was a sweetheart, it was rumored. Perhaps there was a streak of human

sentiment in his make-up after all. It was he who had ministered to the dying worker in the tank factory, defied the supervisor for a buddy.

These flashes burst upon them, impelled them to act. Ben Gleed has made the break! Follow him! Smash the time clocks! Smash the production charts! Tramp over the supervisors! Smash everything!

The huddle of Efficio officers and chance citizens who gaped from the Dome plaza shuddered to watch the destruction that followed, turned sick to see the berserk thousands move up the inclines, one level after another, toward the roof streets.

The destructive crashes subsided, throaty voices filled the air to weld the mob's demand. A death blow to Efficio! The slogan thundered down the streets, down to the multitudes who gathered on the park below.

Electric lights flashed over the roaring thousands as darkness fell upon the city. The terror-filled spectators at the Dome saw the lights of countless cars coming in by roof streets to converge back of the mob, press it ahead.

But as yet no mobster forced his way up a ramp toward the Dome. Not because President Birch cried warnings through the loud speaker. Not because strong gates closed the entrance to each ramp. But because within those gates were machine guns, planted in the railings for protection, electrically operated. They turned the lower end of each ramp into a gridiron spray of bullets that fanned across the path to bury themselves in the opposite railing. The mob was stymied.

Daring deeds are cheap in mobs. Although Ben Gleed clung to the top of the gate and fought to hold his followers back, two fools leaped past him to take their chances with the screen of bullets. No one could have stopped them. But

their fate stopped the others. The hoarse roar fell to an appalled murmur.

GRADUALLY the roar came back as a fire truck edged toward the head of the mob, extended a long ladder horizontally into space, swung the end to the underside of the arched ramp. Somewhere within the structure of the arch were hidden electric wires that controlled the machine guns.

Two men equipped with flashlight and ax clambered out over space, cheered by the mass of humanity that waited on them. Finally overhead lights blinked off, the guns silenced, one of the ladder heroes scurried back, the other made a dim shadow of descent through two hundred vertical feet.

The grimness of the mob redoubled. Death blow to Efficio!

The ramp gate went down under the impact of machines.

"Steady! Steady!" Ben Gleed called. Car lights shot on him, showed the steel of his eyes, the shirt torn off his back, the high-lighted muscles of his shoulders and arms. Mob or no mob, he had a purpose ahead.

His followers pressed after him, onto the darkened incline. Men forced their way into the other ramps, advanced slowly, taking their cues from him. The four wide ribbons of close-packed humanity moved inward.

The Floating Dome was dark. Only one dim light showed from an outside corner of the shadowy plaza to reveal the indistinct clusters of faces at the windows. It was the light attached to the battery of loud speakers, operating on a separate circuit.

President Birch deserted the speakers, closed himself and the others within the building, virtually paralyzed with fear. He knew that unaccountably violent things can happen under mob pressures. Through the window he saw

the advancing tides of waving weapons.

"If they break in it's everyone for himself," he gulped. He floundered through a black room; his hand came upon a portable phonograph. A sudden inspiration—perhaps music would temper the mob's anger!

Ben Gleed, halfway up the ramp, saw the faces at the window, went cold with terror. His father! Lucille! Trapped in the Dome! His arms elbowed back, his feet dug against the sloped walk. But thousands of men and women, intoxicated with the power of mob rule, pressed him forward.

What would happen when these angry creatures reached the Dome? No man on earth could quell them now. Those three chance deaths . . . Violence would pay! Unreasoned violence! Had he brought this on? How could he know these thousands would suddenly cut loose and follow him? But it was true he'd led them on. Now they were out of hand, bent on smashing the Dome—and there was Lucille, horror-stricken—

Music boomed forth from the loud speakers. A lively band number. The strong rhythm surged over four ramps. Four closely packed processions came on in sullen determination. The structure resounded with tramping feet.

The feet began to march. Four ramps felt the rhythmic thud of thousands of feet.

Two hundred feet below, the crowds in the park fled out from under falling bits of masonry, wedges, bolts—

"BREAK STEP!!!" Ben Gleed screamed at the top of his voice. "BREAK STEP OR YOU'LL—" His voice couldn't carry against the deafening music.

Thud! Thud! Thud! Thud! A rhythmic bombardment of feet.

Cr-r-r-ack! A cleavage ripped across the plaza. Stones hailed down. The

marchers, oblivious, came on.

Ben raced ahead, leaped over a fissure, dashed across the plaza toward the loud speakers. The floor gaped open beneath his step, clamped his foot in a concrete vice, imprisoned him on the spot.

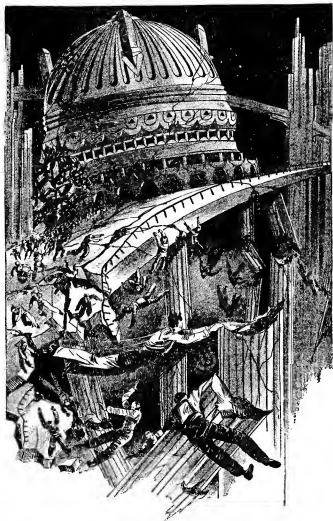
A section of railing broke away from one ramp. The approaching phalanx suddenly stopped, swerved dizzily to the opposite railing, felt the floor wobble and whip beneath their feet. The other three ramps grew heavier with marchers with every down beat of the band music. Fatal rhythm. The whole bridge-like structure groaned, rocked.

Ben, tearing at his shoestrings, found his foot freed. He sprang to the loud speakers, smashed the phonograph with a blow, cried into the microphones, "BREAK STEP! BREAK STEP, YOU FOOLS!"

BUT the rhythm had done its worst with the deadly effect of an earthquake. Two ramps broke free from the center, creaked downward like two gigantic rusty pump handles. The wrench of metal drowned the wails of terrorized people. Then the two remaining arches left bearing the weight of the Floating Dome on the vertex of their right angle sank gently with a strident whine, hung like a great open jaw. Concrete spilled to the ground. The man-made earthquake was over.

None of the arches had dropped far enough to spill its human cargo. The thousands of workers so quickly transformed from marching mobsters into wild-eyed statues, gradually relaxed their grips upon the railings and each other, again became breathing, functioning human animals. They looked across the open spaces to see their fellows stranded on sunken bridges.

At once the attention centered upon a conspicuously freakish spectacle



The great ramp crumbled beneath the measured marching rhythm.

wrought by the catastrophe: One of the descending ramps had left an arm of steel thrust upward, with one corner of the plaza, bearing the loud speakers and Ben Gleed, balanced upon it.

Before the stranded multitudes had time to stir in their uncertain tracks, Ben Gleed had the situation in hand. His voice zoomed through the speakers.

"Don't move! Hold your positions. Everything will be okay . . . The fire ladders can reach you . . . There'll be plenty of time for everyone . . ."

His commands hypnotized the helpless throngs. The vast crowds on the ground were also quick to act on his suggestions. From his vantage point, with the aid of his speakers, he brought quick order out of chaos.

He moved the crowds, directed the fire trucks, called in a stream of private cars to serve as ambulances for the injured, assigned a corner of the park for first aid, gave directions for handling the hysterical.

With the more serious victims cared for, attention turned to the task of removing the thousands from their aerial prisons. The rescue was not a job of minutes, but hours. Any impatient activity on the tenuously suspended ramps might result in further disaster. Was it possible, President Birch and his directors wondered, that Ben Gleed could hold the nervous hosts in check?

Ben saw the peril, clutched the microphone, plunged into a speech—such a speech as he'd never made before.

While the electric ladders husily shifted people down to earth, like grains of sand through an hour glass, Ben Gleed recited the whole history of the Efficio speed-up policies. He ventilated his own errors. At last, he said, his mistaken theories of speed were revealed to him as plainly as this very wreckage before his eyes.

"In fact, it's the very same story. I

believed that men never worked themselves to the limit. But what is the limit? It's the breaking point!

"I assumed that we worked our machines to the limit, but we don't. When we run them to what we call capacity, we still leave a safe margin. I forgot to do that with humans.

"When machines or humans go to their limits they're on the verge of a crack-up. Another revolution per second, or one vibration too many, as we have seen tonight. . . ."

Ben came to the painful subject of the revolt. It looked as though the fates had interfered; but the fates had spared them, to give them another chance, and it would be their responsibility to demand reforms, for the good of the city as well as themselves.

He lowered his tone as he saw that the last of the waiting groups came down the ladders. One of the trucks hoisted a ladder in his direction.

"In conclusion," he said, "I'd like to help you make these changes in Super City, but I'm due to be deported—"

"NO! NO!" the crowd cried.

The ladder reached him. Someone was on it, coasting upward. President Birch. He carried a three-foot key of shining chromium. He spoke into the microphone.

"The directors and I have decided, after due deliberation, that the one person qualified to straighten this city out—" his words were drowned in cheers as he handed the Great Key to Ben, who promptly lost his footing, clutched the ladder for dear life. He and President Birch coasted down.

Later that night he held Lucille securely in his arms, told her his great plans for Super City, while his father cracked, "Some of those reporters outside the door are still askin' if you're a man devoid of sentiment. Kin I let 'em come in an' see you now?"

MIGHTY JELLY FISH!

THE secret of the "strong man" is now revealed! Says Dr. Eben J. Carey, dean of the Marquette University School of Medicine, in an address before the American Association for the Advancement of Science, the secret of muscular strength lies in the vibration of a protoplasmic "jelly" inside the sinews of muscles.

The jelly, says he, fills the thread shaped cells that link together to form the bundles of muscle called sinews. And it vibrates to cause the well known contraction and expansion of muscles.

In proving this, Dr. Carey carefully mapped 25,000 slices of muscles, each sliced to about one-thousandth of an inch in thickness! He arranged these slices so as to stop the action of muscles in all stages, and in all sorts of creature from flies to men. These slices revealed "waves" in the protoplasmic jelly very similar to those caused by a pebble thrown into the water. The waves are started by nerve ends, of which there are a great many scattered throughout the muscles. The original waves are confined to the single threads near the nerve endings, but the effect

is the same as throwing a handful of pebbles into the water.

The result is an almost instantaneous spread of the waves throughout the muscle. The waves are a to and fro vibration, lengthwise to a muscle thread. Although starting from different points, they synchronize and lock like alternate dark and light cross bands over the entire muscle.

These cross bands are not new. They were first observed in 1665, when they were discovered with the newly invented microscope. They were thought at that time to be membranes, and most text-books on muscles still consider them to be fixed parts of the muscle.

But Dr. Carey has proved them to be optical illusions. Their positions are not fixed, but are merely the appearance of the vibrating protoplasmic jelly at points where it gathers in knots, or peaks, of wave action.

So the next time you want to tell your dearest enemy a weakling, don't make the mistake of calling him a jellyfish, because it's jelly that makes muscles mighty.

ON A FROSTY MORNING - WATCH YOUR BREATH TRAVEL

BAD BREATH TRAVELS AS FAR

ONIONS
DENTAL DECAY
TOBACCO
UPSET STOMACH

SEN-SEN
FOR THE BREATH

5c

THROAT EASE
AVAILABLE TO
SINGERS AND SPEAKERS

DON'T OFFEND... USE SEN-SEN

BREATH SWEETENER... DELIGHTFUL CONFECTION

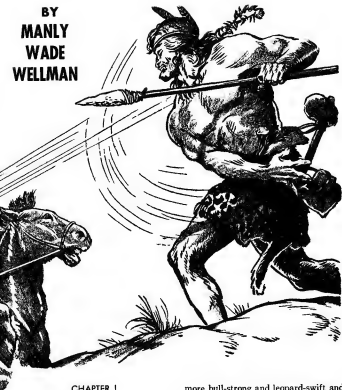
HOK GOES to ATLANTIS

HOK pitted his caveman
wits against Atlantean priests and
found courage was better than craft

Hok drove his spear
through the warrior's body
so that its blade pro-
truded from his back.



BY
MANLY
WADE
WELLMAN



CHAPTER I

The Horsemen and the Valley

THE wolves had been chasing Hok for three days.

Hok had become great, in body and in fame, since the days when he, barely past his boyhood, entered the northern game-lands and purged them of the inhuman Gnorrls.* Maturity had made him taller than ever, and

* Stone age men called the Neanderthal beast-men Gnorrls. See "Battle in the Dawn," AMAZING STORIES, January, 1939.—Ed.

more bull-strong and leopard-swift and lion-tawny. He wore a short, soft beard, like the fiber which his wife, the lovely Oloana, beat from autumn grasses and wove into baskets and pouches. He ruled a fighting tribe of valiant hunters and handsome women, and also was respected and deferred to by the allied clans of his brother Zhik and his father-in-law Zorr. His hunting grounds yielded fat game, and there were still Gnorrls to fight if the time passed heavily. Yet Hok had not out-

grown his enthusiasm for exploration; and so, telling Zhik to command for him, he had gone away on a spring jaunt to the south and west, into country he and his did not know.

And the wolves, a good forty of them, picked up his scent and hunted him through the forest for three foodless, sleepless days and nights.

Now they gave tongue exultantly, for they were driving him toward a great cliff, against which he must come to bay; but Hok, who ran like the deer and fought like the lion, also climbed like the ape. He scaled the rocky wall nimbly, laughing backward at the famished howls of the pack, and dragged himself to the brow of the cliff in the bright morning. Standing erect, he gazed afar into a valley.

But such a valley! It stretched down and down, gently but ceaselessly. He gazed into sloping meadows, with groves beneath them, and water-courses, and broken country, for the distance of many marches—falling down, down, down, gently but steadily. As for the valley's other side, it was lost in far

blue mist, as though it were hidden beyond a piece of the sky. Things were green and fresh, and Hok heard birds, saw the cautious motion of game in tall brush. It must be a good hunting land.

If he had not cast away his two flint-headed javelins at the wolves—it was always that way when you had nothing to throw. Here came some horses toward him, around that thicket.

No, not horses—men!

No, not men—but not horses, either!

Hok's bright beard stirred with excitement. He shaded his blue eyes with a wide, hard palm. Surely the things had hoofs—four each—and horsey tails. But why did the heads and

shoulders of men thrust up from each? And then Hok saw, and wondered still more. The horses were normal, and so were the men—but the men were riding upon the horses, as baby monkeys ride on their mothers' backs.*

It was almost too much for the cave-man's simple mind. To him, a horse

THE LEGENDARY LAND OF ATLANTIS

ALL peoples and continents have memories of it, so it must have existed—fair, lost Atlantis, the land that was the greatest in all the ancient world for strength and beauty, and was swallowed by the maps of ocean.

Where did that bright country once rise? An island in mid-Atlantic, of which only the mountain-tops show today as the Azores and the Canaries? In the heart of the Sahara, near the peaks called Atlas? In the Gulf of Mexico, teaching Aztec and Maya to pronounce the mystic word Atil?

Or was it the vast rich valley between the continents, the warm, green country that glaciers never touched, that existed when our fathers, the first of the true men, were wrestling Europe from the bestial paws of the monstrous Neanderthals? That valley is filled with blue water today, and is called the Mediterranean—the midst of the Earth. Its forests and meadows are drowned; but from them may have come the people who bore and cradled culture in the nations around that inmost sea—nations "like frogs around a puddle," as said Plato, who also knew of Atlantis.

Tremendous as was the glory of that lost land, more tremendous still was her doom. It beggars imagination, the rush and triumph of ocean, breaking the barrier and filling the sunken basin that was like an inverted continent, drowning forests, cities, nations. How could even one escape from the judgment? Yet some one did, and told his children of what he had seen and escaped, and they told those who came after them, down to the present day. How else could we know.

Who was that survivor of Atlantis? He must have been a mighty man. He may even have been the hero we remember as Hercules.

* From some such introduction to mounted men must have come the first conception of the centaur.—Author.

was a toothsome creature that yielded much meat—no more. He had never thought of riding one. Yet, whatever his surprise, he did not fear. He moved forward to the rim rock that jutted above the valley, and gazed.

Hok was naked except for leopard-skin kilt and moccasins of tough bison hide. At his girdle hung a pouch and a sheath that carried a finely worked dagger of deer-horn. He bore, too, a stone-headed axe, chipped of blue flint, its keen edge a full span in width. His body was tanned and superbly muscled but, save for his hair and beard, it showed as smooth as a peach. Not even in those fierce days was one apt to see a bigger or better specimen of manhood.

The horsemen came close toward him, then halted their animals at a signal from their leader. There were as many of them as there had been hungry wolves below. Most of them seemed swarthy and bearded, and wore strange clothing, either pale or shining. If it was of leather or fur, Hok had never seen such beasts as yielded it.

The leader came forward by a horse's length—a trim, smooth-faced individual, in a close-fitting garment that seemed to be made of huge fish-scales.

"You on the rock!" came a clear challenge, in a tongue not too dissimilar to Hok's own. "Who are you?"

"Aye," growled a deeper voice from the party of riders, "and tell us your people, and the name of your master."

"I am Hok," shouted back the cave-man. "My people are those who hunt to north and east, beating back the hairy Gnorrls. I have no master."

"The fellow flouts us, he is a mad-man," grumbled the deep voice, and its owner sidled his horse out to join the leader. This second speaker was squat and black-bearded, and even at the distance Hok saw that he was fierce of face and sharp eyed.

"If I am mad," Hok threw at him, "I may come down and make you fear my bite."

With an oath, the bearded one lifted himself in his seat, whirled a spear backward, and launched it at the defiant Hok, who stood still to watch the course of the weapon. It was a sure cast, but not too strong, according to cave-man standards. As it came at Hok, he swayed his big, lithe body sidewise, shot out his right hand like a snake, and seized the flying shaft by the middle. Whirling it end for end, he sped it back the way it had come, with all the strength and skill of his mighty muscles behind it. Forty throats whooped in startled anger as the black-beard spun off of his beast, transfixed by his own weapon. Hok's answering shout of laughter defied them. It had all happened in two breaths of time.

FOR more than two breaths thereafter, the company hesitated. To them it seemed that the spear had bounced back from Hok and punished its hurler—a feat of magic. Nona cared to attack magicians in those times. Again the leader spoke:

"I did not order my man to cast at you, and I do not take up his quarrel. Come down and make peace."

Hok did not stir.

"Come down," came the invitation a second time. "I swear by my honor, and by my god, the Many-legged Ghirann, that you will find only profit."

Hok felt sincerity in that oath. He scrambled down the face of the inner bluff, and strode forward. The leader trotted out to meet him, and Hok grew sure of what he had been suspecting—that the leader was a woman, young and of a certain sturdy beauty. Her jaw was square and her nose straight, and her hair and eyes were dark. Around her throat was a collar-like string of

sun-glowing lumps. Hok's own blue eyes met her dark ones, and he tossed back his lion's mane of hair.

"Hok, you call yourself?" said the horsewoman. "I am Maie, a chieftainess of Tlanis. Now, by your act, we ride one short. Will you make our hand whole again?"

"If I refuse?" he suggested, hand on her bridle-rein. "If I become your enemy?"

She smiled, without showing her teeth. Her tight lips could be hard, he saw.

"You cannot fling back all our spears, Hok. Be wise, take the horse and tackle of him you slew."

A man was leading the sturdy, shaggy brown beast forward. A gourd at its withers danced and gave forth liquid sounds. Hok, who feared not Maie or all her followers, was thirsty enough to let this item persuade him.

"I seek new sights and peoples," he consented. "I will ride with you." And he vaulted upon the proffered animal, confidently though a bit clumsily. "Where do we go, warrior woman, and on what errand?"

Like him, the mounted troop had been exploring. When she heard from him that beyond the rimrock was a great steep cliff, and only trackless forest beyond that, Maie gave a signal to turn. "We will ride back five days to our own place," she said, "and if you are indeed a stone-chipper and cave-dweller, we can promise you your fill of strange sights."

They rode away. When they made camp that night, at a grove of palm-like trees with a spring at the center, Hok had learned to manage his mount in a way that bespoke his great courage and aptitude. There were other wonders harder for him to fathom. The drink in the gourd—wine, Maie called it—was at once fiery and refreshing; the

weapons of the man he had supplanted were of strange bright material, neither stone nor bone, but tougher and keener than either, and called bronze by his new companions. Their clothing, too, was partially of that material (Hok was a little scornful of the idea of armor) and partially of woven threads of plant fiber or animal fleece, a fabric like Oloana's grass baskets, but finer.

On the next day he rode beside Maie at the head of the party. The slope took them down and ever down, and as they descended the country grew richer and warmer. Hok, used to tough-grassed meadows, bardy bushes and cone-bearing trees, gaped with wonder upon feathery palms and shrubs with bright flowers a foot across, on clusters of red and yellow fruit, on broad-leaved, sky-aspiring groves, in which played gay-plumed birds and chattering monkeys. Yet his wonder was tintured with a ghostly sense of familiarity, as though within him stirred the memory of his own dim ancestries, spent in such an environment.

He also learned about the people of Tlanis.

THEY lived, said Maie, in a stronghold near the ocean, and had neither to hunt nor to steal for sustenance. This great valley, many days' journey across, was full of subject tribes who provided food and other necessities for their rulers in Tlanis. Hok heard in half-comprehending wonder that other animals besides horses were kept captive, and fed fat for leisurely butchering; and that fields were planted with seeds, to bring forth vegetable stores that Tlanis gathered far more surely and easily than the women of Hok's people gathered fruits and nuts in the forest.

He was full of questions, that lasted even to the fifth and final morning of the ride. Maie answered them all.

"And now, great wielder of stone," she asked him at length, "are you not convinced that our way of living is better and softer than yours, among caves and wild beasts?"

"I think," he replied, "that soft living makes soft men."

"But is there not an advantage?"

"I cannot yet say that, Maie."

She smiled as she heard him speak her name. "You might say, at least, that you like me, Hok."

"I do not know yet if I like you," he replied. And no more he did, although he had loved and wanted Oloana within the first instant of seeing her. This woman, Maie, was beautiful and wise, and so far had treated him with more than fairness; but Hok reserved judgment upon her.

He looked again at the collar of gleaming yellow objects she wore. They were beads, curiously worked and engraved, and strung on a thread or wire of the same substance.

"What are those?" he asked Maie.

"They are gold."

"What is gold?"—And she sighed, as though she must give up trying to instruct him.

They rode in silence through a lush, sweet-smelling forest, and before noon came out in open country.

A height of rock and earth rose against the horizon. It extended to left and right, beyond reach of the eye, and beyond it shone, or seemed to shine, a bright blueness—water, more water than Hok had ever seen.

Directly ahead of the riders, lifting from the level of this barrier, appeared a broken peak. From its top floated a wispy plume of dark smoke, as of a great beacon fire.* And beneath the

* The volcanic character of the rocks at Gibraltar, and across the straits in Morocco, suggests that a great volcano once rose there, shutting back the ocean from the sunken valley which now holds the Mediterranean.—Author.

barrier, at the point where the peak crowned it, lay heaped and clustered strange mineral shapes, of various angles and sizes and plans, but somehow ordered in their relationships. Hok stared.

"What things lie there at the foot of the cliff?" he demanded.

"They are houses," said Maie. "Walls and palaces and streets. Did I not promise you wonders? Yonder is the city of Tlanis, which rules the world."

CHAPTER II

A Summons from Cos

TO DESCRIBE the city of Tlanis, words and comparisons are needed which were utterly strange to Hok as he rode with his new friends down the broad paved trail.

Built at the "end of the world"—that is, under the lee of a mighty barrier that held back the high-piled wastes of the ocean—it was far below sea level, nestled against the steep slopes and lower ledges of the great natural dam of volcanic rock that kept the valley from being flooded. On the landward side, a great artificial wall of stone, cut and mortared, defended the place, with green meadows, orchards and grain-fields close to its foot. Within mighty gates of hewn logs, each a cunning interlacement like a giant's mat-weaving, were squares and clumps of houses, one and two and three stories high. The passage-spaces between—Hok must learn to call them streets—were faced with flat slabs of stone, and thronged with men, horses, litters, wooden-wheeled carts. Maie pointed out to him the various classes of citizens, the laborers, merchants, soldiers, farmers, nobles, beggars.

The city rose on a succession of

broad ledges or terraces. Each of these was strung with buildings, a lengthwise street or two, and occasional ramps to other levels. Passing upward, the company came to the market level, in which great arcades and small shops were filled with foodstuffs, fabrics, weapons, utensils, jewelry and other wonders, over which merchants and customers chattered in yelling multitudes. Hok listened to Maie's explanation of commerce, but the idea of money—pieces of metal, sun-yellow or moon-white—he could not grasp. Maie's gold beads be understood. They were ornaments, such as women prized. Beyond that, gold was nothing—not good to eat, too soft for weapons.

"I think that some of these people work too hard, and others too little," he announced. "That man with the curly beard and the red cloak, whom you call a rich merchant, is too fat. So is that other, who comes and talks to him. They are short-breathed and flabby-muscled. I have a son at home, a little boy, who would live longer than they in the forest.

"This is not a forest," Maie reminded him. They mounted to a higher level, where only soldiers marched or lounged on the street, and dwelt in the sturdy barracks buildings of stone and timber. Here, Maie ordered her horse and Hok's to be led away.

"Come," she said to him. "I will show you places of delight in this city."

They went down a ramp on foot, passed through a bowling market—the voices were too shrill to please Hok—and came to an open-fronted, palm-thatched shop with tables, benches, and the scent of food and wine. At Maie's motion, Hok entered, and they both sat down. A slender youth with curly hair brought them steaming portions of meat and vegetables on clay platters, also metal mugs of wine.

"Thank you," Hok said cordially to the waiter. "It is kind for you to give a stranger food and drink."

"Strangers must pay, like others," was the reply, and Maie took coins from her belt-pouch.

"Why is gold given for food?" demanded Hok when the waiter had gone. "It is a matter too deep for me."

"I am afraid you hate gold," smiled Maie.

"All except the beads you wear. They are beautiful."

"You like them?" And at once Maie undid the collar from her neck, and held it out. "They are yours."

Hok was about to refuse, with thanks, when it occurred to him that his wife, Oloana, would demand a present when he returned to the caves. And so he accepted the present, and fastened it around his corded wrist, where it hung like a hangle.

"I have many such beads," Maie told him. "I am rich, I have lands and servants and warriors."

"I never before saw a woman who led fighting men," said Hok.

"My father had no sons, and when he died I became a chief in his place. Is that strange? Will not your little son, of whom you spoke, be chief after you?"

"I hope he will," replied Hok, "but he must earn and prove his right to lead, when he is a man. No son stands on his dead father's legs with us."

THE two ate and watched the passing market-crowd. Many a gaze answered theirs, admiring and appraising the stalwart tawiness of the cave chieftain. Hok listened as Maie continued her explanations of the government, the organization and life-ways of Tlanis.

"I still think it is bad," he said, when she had finished. "From what you say, many are poor—some even hungry—in

this big sunken valley, which to my notion is the fullest and finest place in the world. There must be food enough for everybody, almost for the taking."

"But there can be no taking without paying," Maie assured him patiently. "All this belongs to our rulers—to Cos."

"Who is Cos?"

"The master of Tlanis, and of the great valley. Of all the world."

"He is not my master," replied Hok doggedly. "I never heard of him. But he must be tremendously big and hungry to eat all the good things I have seen."

"He is a great man, and his appetite is good," admitted Maie.

"But to feed this one man, many go hungry and wretched," argued Hok.

"He has soldiers to feed, and slaves, and more than fifty women," Maie elaborated.

"Fifty women!" cried Hok, and shook his head in refusal to believe. "One is enough for any man."

Maie was thoughtful. "Cos does not think so," she said. "He is always taking more. Just now he wants me, he has asked me to enter his palace. I will be his favorite if I will leave off adventuring and exploring, and give myself to him."

"You love him?" asked Hok.

"My family is great in Tlanis. Since my father died, I have become chieftainess of many men, horse and foot, with other property. Yet, if I accept Cos, I may be even greater."

"Why should you want to be greater?" demanded Hok, and Maie seemed unable to answer. "I do not know if I like Cos," Hok went on. "He takes food from others, and to starve is a bad death. He should go hungry himself, to learn how it feels."

As they finished their food and wine, a tall, lean man in a long robe came up to them. He had a face like a wise

eagle, and a tag of beard on his chin. "Greetings, Maie," he said in a high, disagreeable voice. "Cos has heard that you are in Tlanis."

"The ears of Cos are long, priest," replied the young chieftainess.

"He wonders why you do not come to make report to him of your explorations, instead of sitting in a wine-shop with a great hull of a stranger."

"Call me bull, and I will gore you," said Hok, getting up and kicking back his bench.

The eagle-faced man turned pale and shrank away, while Maie hastily interposed. "Do him no harm, Hok; he is a priest, full of wisdom and authority."

"Does the authority allow him to insult strangers?" demanded Hok. He glared wrathfully, and the priest slunk away. Maie stared at her guest from the wilderness. Her dark eyes were full of light, half fearful, half admiring.

"Come," she said. "Cos has spies who have told him of us. He is jealous. We had better both go to see him. Are you afraid?"

Hok feared nothing, and said so. They left and climbed again, to the highest level of the city, a grand terrace overlooking the rising clumps of houses, the wall at the foot of the height, and the fertile valley beyond.

This terrace was carpeted with green grass, and tufted with trees and flowering bushes. Hok wondered still more when he learned that all this planting was by man's labor, as in the fields of grain and vegetables below. Among the shrubbery loomed a great cube of a building, white-pigmented with lime, which Maie called a palace; to one side was a wall, with a gate. The two came to this gate, were admitted by a sentry in armor, and entered.

They stood in a courtyard, paved with white gravel, and completely surrounded by spike-crowned walls, with

the blue sky above. At the side where the great building abutted, was a canopy of striped fabric, raised on poles against the warm sun. Beneath the canopy was set a chair, of carved and gilded wood; and upon that chair, flanked on either side by a dozen sentries braced to attention, sat Cos, the master of Tlanis.

CHAPTER III

Defiance and Doom

HOK stared at Cos, and was deeply disappointed. This man, who ruled more land than one could cross in many days' journey, and more people than one could count in weeks, who could hold back supplies of food from the mouths of hungry tribes, he had already judged as unkind. Now that Cos was in view, Hok saw plainly that he was neither brave nor strong; and courage, strength and fairness were, to Hok, the criterions of chieftainship.

Cos was flabby and bunch-bellied, with sleek, soft calves and biceps. His beard, trained into black curls, cascaded down his bare, dark chest. In the midst of the gleaming thicket of hair showed a plump red mouth, like a spoiled fruit—the mouth of an idle sensualist. His eyes, set as close as a spider's, had shifty lights, detracting from the proud power of brow and nose. He wore bracelets, fillet, and girdle of hammered gold, and his kilt and sandals were embroidered with small glittering stones of red, blue and green.

Maie bowed before him with ceremonious respect. "Hail, Lord of Tlanis," she spoke. "I am come from my explorations, to give you news of unknown wild lands toward the north. Men live there, and other creatures. I have brought with me one such man, himself a master of peoples."

"With whom you prefer to loll and drink," Cos added poutingly. His spider-eyes wandered to Hok. "Give account of yourself, stranger."

Hok did so. Cos listened, with disdainful hostility at first, then with almost greedy interest. As Hok told about his enemies, the hairy, half-human Gnorrls, Cos exclaimed delightedly, and began to ask questions.

"I have heard a little about this race you call Gnorrls," he said at last. "You say they are very strong creatures? And cunning, though less wise than men? . . . Good. I will send soldiers to encounter them."

"To kill the Gnorrls?" suggested Hok.

"Hmmmmmm. . . . No. Not kill them. Capture them. They are strong beyond human strength, and wise enough to learn, but not to overthrow. I will have them brought here, for slaves." Cos licked his loose lips over the prospect of conquest, as a hungry man might relish the thought of good food. "And now, cave-man," he went on, "tell of your own people."

Hok amplified his first remarks about his kinsmen and followers, living and hunting in the country they had wrested in fierce combat from overwhelming spawns of Gnorrls. Cos listened eagerly, as before, then shook his gold-circled head. "I do not think I will enslave your tribe," he said.

"It is well not to try," Hok assured him.

"They would make bad slaves, I am sure," continued Cos. "They are proud, wise, fierce-tempered." He mentioned those characteristics as though they were faults. "No, not for slaves. My men will kill them all, and take their country."

It was briefly and plainly said, even for that age of scant diplomacy and frank statements. Hok glared at this

evil, greedy wielder of great numbers and wealth. He wished that he had not told of his people. Anger grew against himself and Cos. Into his throat rose a deep growl of challenge.

"I will go to prepare my people for war," he announced, and turned toward the gate. Cos made a finger-wagging motion. The line of sentries at his left deployed, spears at the ready, to cut off Hok's departure.

"Stay where you are, chief of the stone-chippers," commanded Cos. "My own soldiers will bear the news of war to your land. Be thankful if you yourself escape."

Hok's anger burst like a hurricane. "Unsay those words!" he roared. "Otherwise, you will not live to speak others!" And his big stone axe, stirring in his bulky fist, lifted its blue head like a threatening snake.

Cos grinned, and made another languid motion. The guardsman at his right elbow moved forward.

Hok swung to face this new challenger. The man was beard-tufted and lank, with not half of Hok's volume of muscle; but he threatened the cave-man with a strange device.

It looked like an apple or melon, a round smooth sphere of bronze. From a small hole in it protruded what looked like a twisted, blackened rag, hanging free as the soldier poised it in his ready right hand. The left hand lifted something else—a smouldering saucer of oily fool, like a lamp, not more than a hand's breadth from the dangling tip of the rag.

"Have a care, stone-chipper," chuckled Cos in his curly beard. "If you threaten me, I will sweep you away with the weapon of thunder and lightning."

"Thunder! Lightning!" echoed Hok, in unbelieving scorn. "Do not lie. Only Sky-Dwellers wield such things."

"Ah," said Cos, "and I am as great as the Sky-Dwellers. Ghirann the Many-Legged made their secret of destruction mine."

"It is true, Hok," muttered Male fearfully, close to his ear. "The lightning-stuff is made by the slaves of Ghirann's priest—it has long been known and used in Tlanis." *

But Hok did not show the slightest fear or hesitation. He addressed the soldier: "I will take that fruit-thing from you, and your hand and arm along with it."

"Oh, show the fool," snapped Cos, and the soldier, dipping his fuse into the fiery saucer, lifted and flung the bomb.

Male shrieked and sprang frantically away; but Hok, still holding his axe in his right hand, shot up his left, caught the flying missile as it came toward his face and hurled it instantly back, as he had hurled the spear a few days before.

There was a fearsome roar, a blinding flash, a cloud of soot-black smoke; and through it Hok could see that Cos had been knocked from his throne-chair, his beard half singed away, while four of the twelve men on his right hand sprawled, burnt and broken, in death.

"See!" yelled Hok. "I have given you back your evil magic!" And he charged at the overthrown Cos.

But the rest of the sentries rushed at him from either hand. They levelled bronze-tipped spears at his heart as they closed in. Hok emitted a short, fierce spurt of laughter, and swept the blade of his axe horizontally in front of him. Its keen-flaked edge found and shore away the heads of three spears, and he sprang into the gap thus made. His swooping weapon bit through a helmet, and through the skull beneath

* Ignatius Donnelly, in his interesting work, *Atlantis*, offers an interesting collection of legends about explosives among Atlantians.—Author.

it to the nose-bridge, and as he strove to wrench loose the wedged flint, the others were upon him.

"Take him alive!" roared Cos, starting to his feet; and a score and more of hands clutched at Hok's body and shoulders. He strove and cursed, kicking and buffeting. With one full-armed swing of his fist he smashed a bearded jaw, with a grasp and a wrench he dislocated a shoulder. But the soldiers were too many for him, and in the end he lay prone on the gravel, his wrists and ankles bound by the belts of the sentries.

Cos now dared grin and exult. "The hero of the forest lies at my feet," he sneered. "So will his people, when my soldiers march upon them. Take him away."

"Where, master?" panted a sentry.

"Where but to the sea-barrier above?" replied Cos. "Let him enter the dwelling of Ghirann our god, whose food is the blood of the wicked and proud—Ghirann the Many-Legged, the Terrible, who has waited over-long for sacrifice from Cos, his brother!"

"Not Ghirann!" ventured a shaky voice—Maie, who had stood apart and marvelled at the strength and fierceness of Hok. "Stop and think, Cos! Might not the courage of this prisoner merit a better death?"

"He would merit a worse one, if I could invent it," growled Cos. "Take him away, soldiers, and let me hear this night that Ghirann has feasted full upon his blood and body."

CHAPTER IV

The Cave of Ghirann

UP the face of the cliff above the city ran a sloping way, cut slantwise, like a crossbelt on a giant's chest; and up that way the detail of soldiers shoved and dragged the bound chief-

tain. Hok could not tear loose from his bonds, and so he stopped trying. Philosophically he looked out across the scene below—the huddled city, the cultivated lands beyond, and the valley afar, all groves and plains and slopes. Surely this was the land of fruits and dalliances, a paradise where winter never came—and it was ruled by Cos, the selfish and cowardly tyrant.

Hok's greatest regret at the time was that he had not fleshed his stone axe in the scornful face of Cos. . . . Regretting, he was borne to the top of the great barrier-cliff under which Tlanis nestled.

Even though Maie had told him that the sea flowed higher by far than the tallest roof in the city, it was a surprise to come out upon a rocky shore, with the limitless blue waters beating almost at one's feet. The top of the mountainous barrier now appeared as a vast extending causeway, losing itself in foggy distances to either direction, with the sea close at hand on one side, the valley far below on the other. The slanting upward trail had taken Hok and his captors well beyond the position of Tlanis, so that the peak now appeared at a distance. In the other direction they proceeded, toward a square-built stone hutch or house.

Hok, as he hobbled along, gazed once to landward. He realized, for the first time, how deep the valley truly was—a sort of sky-pointing cavern. No wonder that things were always green and warm here, he mused.

And then the sentries were hailing someone who came from the square stone house.

It was the tall, eagle-faced priest in long robes, with whom Hok had come close to quarrelling in the wine-shop. He grinned sardonically when he saw the prisoner and heard the report.

"I knew he was meat for Ghirann

when first I saw him," he informed the guards, fingering his tag of beard. "Leave him in my charge." To Hok he said, "Come with me, you meat for the god."

Hok, his ankles hobbled with a leather thong, raged unavailingly as the priest shoved and chivvied him along the rocky shore to the stone building. From the doorway came another man to meet them—a filthy, tousel-haired creature in a red kilt, with vacant eyes and a twitching, slobbering mouth. Hok gazed with loathing; his own people were accustomed, for the sake of mercy and practicality, to kill the feeble minded.* But this creature, apparently a favored companion of his new guard, danced and gibbered, gnashing long yellow fangs.

"Is this Ghirann, who is to eat me?" Hok demanded of the priest. "It is to be expected that the people of Tlanis would worship a crazy man."

The priest turned pale with anger at the slur, but then smiled barshly. "Ghirann has touched his mind, and made him holy,**" he explained. "There is always such a one, in the service of the god. But Ghirann himself, the Many-Legged Hungry One, will appear even more strange to you—for the little time you will see him."

With the scrawny hand of the priest urging him forward and the mad acolyte jiggling and twittering, Hok came to the house, but was pushed around it instead of entering the curtained door. Then he saw that the stonework was only an augmentation of a rocky protuberance, apparently the mouth of a cave. A

* The splendid physical proportions and large skull capacities of the Cro-Magnon skeletons have led scientists to conclude that the Stone Age Spartans, Hok's people, systematically destroyed the weak in body and mind, thereby improving the breed.—Author.

** This belief is common today, among many ancient peoples.—Author.

smaller opening, full of blackness and closed by a grating of wire-bound wood, faced away from the sea.

"You will go in there," said Hok's captor. "The cave runs far back, into the salt water. And Ghirann lives within, silent and hungry."

"Free me of these bonds," said Hok, "and I will face and fight Ghirann, or any other living thing."

"You would resist a god's hunger? I overlook the blasphemy," said the priest; and, to the madman, "Open."

The grating was drawn back, and Hok pushed in, so violently that he fell full-sprawl upon wet, smooth rock. To the imbecile's giggle was added the bitter, superior chuckling of the priest. Then the grating fell in place again, and was fastened with a heavy bronze book.

Hok lay still, trying to pierce the gloom with his eyes. That the hole was closed up suggested that Tlanis did not care to have its god emerge—it might devour worshippers as well as sacrifices. When would it appear? Hok gritted his teeth and his beard stiffened. Would he, who had come safe out of the clutches of tiger, lion, bear, wolf and Gnorrl, be eaten at last by a monster called the "Many-Legged"? If only he were free, to fight for his life with his mighty bands . . .

HE could see now, a little, as his eyes grew accustomed to the darkness. The cave was large, extending downward rather than up, and the water of the sea filled its bottom so that the ledge on which he lay was none too spacious for his stalwart, helpless body. At some little distance a bluish glow of light showed. Apparently there was a seaward mouth to the cavern, just now under water.

Hok surged with all his strength against his bonds, until his muscles cracked; but the belts and thongs were

of stout make, doubled and tripled. Horses could not have burst them apart. He tried to roll toward the water, hoping to soak the leather and so stretch it; but at the very lip of the ledge were wooden pegs, driven deep into the rock. Over them he could not hoist himself.

He turned his attention to the wooden pegs, as a possible cutter or ripper, and scowled. Many years of water-washing had smoothed them, rounded them. No escape there; he rolled back toward the better light under the grated doorway, and studied his bonds.

The soldiers had tied his wrists in front of him, and then had encircled his arms and body with other bands, so that he could not get his strong teeth to the fastenings. His ankles and thighs were similarly fastened together. Drawing up his knees, Hok studied the twisted belt that was drawn tight just above them. Then he grinned, and in inspiration.

Into that belt had been sewn a rough red garnet for ornament. Hok, by straining, extended his wrists a hand's-breadth from the bonds that beld them to his body. He drew up his knees, closer and closer. The wrist-clamping leather rasped against the red stone. Again—again—

Hok had begun to pant by the time he had scraped through the cord on his wrists, but the other bonds were easy to unfasten then. He did not go to the grating at once, but lay at the rim of the ledge, thrusting his arms between the pegs to cool the chafed skin in the water.

And he could see well enough in the cavern's dimness to realize that he was not alone.

First a ripple of the water; then a blotting away of the blue patch of light, as though a bulk crowded in from the sea; and finally a churning of the surface, a great curved lump of darkness,

a thrash of many cable-like limbs—and Ghirann came stalking through the shallows in search of his prey.

Hok, rising on his knee, saw the god of Tlanis plain.

Limbs as pliable as snakes and as strong as spear-shafts bore Ghirann wrigglingly forward. Above, and centrally, rode a puffy bladder of a body, as large around as Hok's arms might clasp, liver-dark and smooth. Intent, bright eyes seemed to probe Hok with anxious hunger. Ghirann was of a ghastly, baleful dignity, that has impressed younger cultures than worshipping Tlanis.*

The god charged, with a churning splash, and Hok did not retreat.

There was grim grappling on the ledge. Ghirann's legs became arms, embracing Hok's bare flanks and shoulders, clinging to his flesh with a multitude of round red mouths. In such an embrace had many a luckless victim perished; but Hok was free, and full of battle. His strength was perhaps as great as that of any adversary Ghirann had ever encountered. He wrenched himself free from two of the tentacles, and drove back Ghirann with fierce kicks against the flab by body. Ghirann splashed into the water again, but with two mouth-lined cables still clung to Hok's waist and thigh. Other tentacles made fast to some anchorage under water. Then Ghirann began to drag his prey from the ledge.

Hok cursed at the drawing pain of the suckers on his flesh, and braced himself against the row of wooden pegs. Ghirann's dragging arms drew tight across the wet surface of the rock, bent at the angle of his lip. It was a tug-of-war, and a stern one; Hok, with something of embarrassment, knew that

* The octopus is represented in the votive art of ancient Crete, pre-Spanish Mexico, and Japan.—*Author.*

Ghirann was stronger than he. When his braced limbs relaxed, he would be whipped into the water.

He clung to a projecting point of rock on the floor, with all his strength. It held for a moment, then started from its bed, as a loose tooth starts from a jaw. Again Hok cursed, but suddenly broke the curse—the yielding of that rock had provided him with a weapon.

The fragment was big, heavy, and had a rough edge. In his great hand he poised it, like the haftless axes of the Gnorrls. Sighting quickly, he struck at the nearest clutching arm of Ghirann, where it was drawn taut against the rock. He felt the tough tissue yield, and struck again, harder still. The tentacle parted like a chopped vine. Hok laughed fiercely in joy of battle, and struck with the edged stone at the other arm that held him. It, too, smashed in twain, and he was free.

Ghirann bled darkly in the water, but started erect upon the six limbs left him. He loomed above Hok like an immense spider above a stinging wasp. Crouched low on the ledge, his rock-weapon ready, Hok could see the under-center of Ghirann's body, in the midst of those writhing legs. In that center, like the heart of some nightmare flower, was Ghirann's mouth, a hooked, ravenous beak, opening and shutting viscidly.

Ghirann came on again, and Hok hurled his edged stone. It struck and obliterated one of those unwinking eyes, but the god of Tlanis barely faltered. Hok, too, rose erect, retreated a step, and found himself against a rough wall of stone. He tore fragments from it, with desperation of strength, and hurled them in a volley. That gave Ghirann pause, though his tentacle-tips still came gropingly after Hok.

The cave-man laid both hands to a lump of stone, twice the size of his

head, and fully half his weight. It would not come from the wall. Hok dragged and wrenched, and then Ghirann made another rush, enveloping him with tentacles.

The monster pulled strongly, and Hok held himself to the wall by the projection he had clutched. Another pull, that Hok thought would fetch his shoulders from their sockets—and then he was flat on the ledge, being dragged along by the gripping tentacles. But his hands were full of weight—the big rock had broken from its place, by Ghirann's strength as much as Hok's.

With a supreme flexing effort, Hok rose erect on the very brink of the ledge, all twined from ankle to armpit with the snakes that grew from Ghirann's body. But that body lay below him, against the stone floor. Straight at the remaining eye Hok brought down the great missile he had lifted, driving it with all his massed brawn.

And Ghirann, the Many-Legged Hungry One, diety of Tlanis, was smashed like a worm.*

When Hok, pushing away the slack tentacles of his dead enemy, turned toward the landward opening, he realized for the first time that he had an audience. The long-robed priest stood there, his eagle face vacant with awe that now turned to terror. Hok strode to the wire-bound grating, and smashed his way through as a bull smashes through a cane-brake. The priest who had thought to feed him to a sea-monster fell nervelessly on his knees, with bony hands lifted to plead for mercy.

CHAPTER V

The Wise Stone and the Thunder Secret

"DO NOT kill me," stammered the bony man. "I did not know your

* See the myth of Hercules, and his conquest of Geyron, the six-legged man-monster, in a land far to the west of Greece.

strength, great lord, or your courage! I crawl before you—"

"I do not kill, except in battle or for food," Hok interrupted contemptuously. "Yet I think you will die, without my help. This Tlanis affords strange ways for men to get their livings. Your living, I take it, was from those who worshipped the god Ghirann. Now that I have pounded him to death, you will go hungry."

"No, no," the priest made haste to say. "You have killed a god, you yourself are godlike. I will serve you, mighty one, as I served Ghirann. Give me your commands."

"First of all, get up." Under the blazing eyes of his erstwhile captive, the priest rose, trembling and fawning. "Now, then, there is one secret that I would learn."

"Anything," was the quavering reply, but the priest was stealthily plucking at something under his robe. Hok made a quick grab, drew back the folds, and possessed himself of a long bronze dagger, which he thrust into his own girdle. He went on speaking, as though there had been no interruption:

"What I would know is this thunder weapon which Cos, your ruler, says comes from Ghirann."

The priest rolled his eyes and shook his head. Hok showed his teeth, and offered to draw the dagger.

"But it is Ghirann's secret," protested the lean one.

"I have killed Ghirann, and his property becomes mine," replied Hok, stating a law that governed the cave folk.

"Thunder would blast us both," the priest wailed. "Come, the Wise Stone will advise us."

"The Wise Stone?" echoed Hok, once again mystified. "Now, how can a stone be wise?" And he allowed the priest to lead him into the house. The half-witted attendant scampered away

before them, toward the path that led cityward.

Inside were couches, stools, and various great stone chests and jars. From one of the latter, the bony priest drew something like a stick with a lump at one end. That lump was huge and shiny. This he carried forth into the daylight.

Hok examined the object. At some time in the past, a stout stem or branch had been split, and a piece of stone inserted. Later, when the division had healed to clasp and hold the lump, the stick had been cut away well below, to make a handle the length of a man's arm. The stone itself was an angular ovoid, thrice the size of Hok's big fist, and of a semi-transparent whiteness. It glowed and flashed, too, as though from fires within. Hok had never seen its like, but he failed to show the awe with which the priest hoped to inspire him.

"What is this stone's wisdom?" he demanded, and touched it with his forefinger. There was a tallowy feel to it, though it looked clean enough.

"It holds visions within itself, and tells the future," was the deep-toned reply.

Hok laughed. "Then it lies, and so do you. The future cannot be told, but is what men make it."

"I will show." The priest held the thing up by its wooden shaft, like a torch toward the sun, and stood thus for some time; then he carried it back into the hut, Hok following. With his free hand, the priest drew the curtain of heavy woolen fabric across the door, shutting them into darkness. "Look!" he bade.

The big stone now shone softly, as with diluted moonlight.*

"It casts light upon things to come," came the priest's hollow whisper.

* Diamonds are often phosphorescent in complete darkness.

"Within it unfolds a picture. I see you blasted by fire, and all the world with you, because of your blasphemy and disbelief—"

Hok, staring over the other's shoulder, saw nothing but the moon-glow of the stone. "Stop that babbling!" he growled, and, putting out his hand in the dark, snatched away the Wise Stone by its haft. "I count this thing as no more to be feared than Ghrann. Like Ghrann, it shall be smashed."

Surprisingly, the priest laughed, with a scorn to match his own. "Try it," he dared Hok.

"I will," and Hok thrust aside the curtain and emerged into the light. He turned toward the stout rocky front of the house, swung the stone against it like a hammer. The priest laughed again; for the clear crystal lump remained unchipped, while a sizeable niche showed where it had struck.

Hok studied the phenomenon with a scowl, then drew the bronze knife he had appropriated. With the stone firmly clenched in one fist, he pressed the metal point hard and fair against it. His muscles poured pressure upon the contact. He heard an audible clink, saw the point bend; but not so much as a scratch marred the Wise Stone.

"Well!" he said, and drew a breath. "It is very hard. I will keep it—for a club, since it cannot be chipped into an axe. Lead me to the thunder secret."

And the priest did so, because he must.

HE CONDUCTED Hok along the barrier, between sea and sunken valley, toward the peak that gave off a veil of smoke. As they drew near, Hok saw caves in the lower slopes of the peak.

"Is the thunder made there?" demanded Hok.

"Yes—by slaves and prisoner," was

the answer. "They must make much of the stuff, for Cos needs it to rule his people, and to conquer others."

At the entrance to the largest cave, they paused to look in. There, under two heavy-faced overseers, toiled many squatting men and women, all naked and miserable-looking. Some stirred messes of black-looking muck in pots of clay and stone. Others spread the muck carefully on the hearth of a fire that gave both heat and light to the operations. Still others were rubbing dried flakes of the material into meal, between pestle and mortar.

"Is this the thunder stuff?" Hok asked. "I still do not understand." He sniffed, and wrinkled his nose distastefully. "It smells like rotten eggs in there."

"That comes from one of the materials used," the priest told him. "Come, I will show you that also."

They skirted the peak, and looked into a smaller cave. It gave into a long tunnel, full of the sharp eggy smell Hok had noticed. The lower end held a little soft rose of light.

"That way leads to the heart of the smoking mountain," the priest said.

"Fire?" suggested Hok.

"Smoke, on which the deeper fire reflects. From those depths comes a part of the thunder weapon. See."

A skinny, wretched-looking slave came up, gasping from heat and foul vapors. He bore a shoulder-pole, with baskets slung to either end. Those baskets were full of yellow fragments, duller than gold. Hok, bending to examine, sneezed and stepped back. The priest found himself able to smile maliciously.

"That yellow cake from the mountains entrails is mixed with black wood, which we make by roasting willow."

"You burn it?" Hok tried to elaborate, but the bony head shook.

"No, burnt wood has no life. We roast it black, in clay pots."

Hok stared after the slave. "Black willow wood, and that yellow dirt! Are thunder and lightning made from those?"

Again the head shook. "Not entirely. The yellow and the black, placed together in equal proportions, make up only a fourth part. There is another thing, which we add—little grains and crystals, coming from the heaps of seaweed that rot along this water's edge.* Three times as much of that as the yellow and black together—the whole stirred and melted in water, then dried and ground. It is the thunder, speaking loudly and killing many at the command of its master."

"Yet I have seen it strike such a master," growled Hok, remembering how he threw back the bomb at Cos's guardsman. "Well, the more I hear of the weapon, the less I like it. With it a woman can stand safe and slay a warrior, but not cleanly, as with a spear-throw. This," and he flourished his diamond-headed club, "is more to my taste and understanding."

"What is your will now?" asked his companion as they turned from the mouth of the cave.

"To depart from this insane place," Hok was beginning to say, when his eye caught a figure, hurrying along the rocks toward them from the direction of the slanting runway and the priest's house.

It was the mad attendant. He skipped, gestured and grimaced, but the sounds he made were unintelligible. Both men questioned him—Hok

roughly, the priest nervously. All he could do was point to the landward rim of the barrier, and they all three went to peer down upon the city of Tlanis.

Nearest to them though still far below, was the green, flower-rimmed terrace that held Cos's white palace and courtyard. It appeared black and crawling with humanity, which bunched up suddenly, then split into little struggling groups. Hok had seen battles too often to mistake this one, even from a distance above it.

"Fighting," he said, and the priest gaped. "Yes," went on Hok, "someone has roused his friends and attacks that fat spider, Cos."

"But who would dare?" demanded the priest, of the unanswering sky. His imbecilic companion whimpered to attract attention, and put out a trembling finger to Hok's wrist. He plucked at the gold collar fastened there. The priest understood the gesture.

"Ehhh!" he ejaculated. "He has been down to the city—he has seen. It is the woman, Maie—she has power and popularity. For some reason she has rebelled against Cos."

CHAPTER VI

War in Tlanis

HAD the priest been as wise in human thought as he deemed himself, he would have known Maie's reason for rebellion.

It was simply that she had never welcomed the insistent love-profferings of her ruler. Had she been less handsome, Cos would have ignored her. Had she been less powerful, he would have taken her. Things being what they were, he had wooed her for many moons without ceasing and without making real progress.

Hok's defiance in the gravel-strewn

* Saltpeter can be produced in beds of desiccating kelp and other sea plants rich in nitrates. The priest's formula has not been too far improved upon—75 percent of charcoal and sulphur combined, with 75 percent of saltpeter, has made a powerful explosive for later ages than his.—Author.

courtyard, with his capture and departure for the sacrifice, had been the occasion rather than the reason for what happened. Maie, who had first begged for the cave chieftain's life and had been refused, turned and hurried from the courtyard. Cos had called commandingly for her to return, and, as she passed the sentry and vanished from his sight, he made up his mind that there should be no further flouting of him. He called for a messenger and issued orders.

Meanwhile, Maie reached her own dwelling, a sprawling stone house on the level below the palace. In the front room she sat alone, trembling with emotions she found hard to analyze. She kept envisioning the blond giant who had walked by her side to Cos's audience, and had departed in bonds. She thought of his engaging ignorances, his strange philosophy of life, his puzzling questions and his definite statements. He was the strongest man she had ever known, and the most honest, and the most handsome. And she loved him—at least she assured herself that she did. Perhaps she really did. Such things were so hard to know.

In the midst of this, a slave came to her inner sitting-room to say that an armored man was asking for her at the door. She went, inquiringly, to find that the visitor was the courier from Cos.

"You are to come with me to the palace," he announced. "Cos wants you. Today you become his chief woman."

Maie shook her dark head, her mouth too dry to speak. The long, frustrating consideration of whether she would yield to the master of Tlanis was now up for a decision; and she was deciding against it.

The courier frowned. "You cannot disobey your master."

"Cos is not my master," said Maie at once. She was quoting Hok, and it was treasonable. The courier put out a hand to seize her arm and drag her along.

Maie screamed. At the sound of her voice, a soldier of her own following dashed around the corner of the house. In his hand was a chopping-sword, like a very long-bladed bronze cleaver. He cut down the courier with one stout blow, and faced his mistress across the wilting, bloody body that lay on the outer threshold.

They were lost, they both knew—a representative of Cos had come on his master's errand, and had been resisted and killed. There was only one thing for Maie's retainer to say, and he said it immediately and sturdily: "Mistress, I shall not desert you." To this he added: "No, nor will the other men."

"But we are few against Cos," objected Maie. "Drag this body out of sight, and let us think."

Fate granted them scant time for thinking. The event had been seen by a lounging, who ran to report to others, and even as Maie and her servitor bent above the bloody form, the foremost of a curious throng came in view of the doorway.

Once again Maie screamed. Others of her household ran out, thinking to protect her from some danger. The mob, already numerous, but unarmed and not particularly vicious, was daunted. Maie took time to exhort them.

"Do not betray me, people of Tlanis," she begged. "Cos sent evil fellow to threaten me. My man came to my defense—there was nothing else to do. Am I to blame?"

"Not a whit!" shouted a citizen in the forefront of the gathering, a man with a loud voice and a secret grudge against the ruler of Tlanis. A murmur

of agreement went up, and he was emboldened to speak further: "Would that Cos lay dead here instead of his slave!"

"Well said, friend!" responded one of Maie's armed men heartily. This soldier was an opportunist, and saw a chance of real resistance against the fate that would soon move against him and his comrades. "Who else is for us and against the tyrant?"

Had a philosopher been present, he might have spoken learnedly about the spirit which sways mobs, all unprepared, to one common fierce impulse. But there were no philosophers—only loiterers and poor laborers, most of them with valid grievances against the cruel, greedy man up yonder in the palace. They began to speak out, bravely, and to roar for blood and vengeance. Maie, more frightened than ever, tried to calm them—she had never quite thought of actual rebellion; but the affair had passed quite out of her hands.

Some of her soldiers, ready fellows without too much forethought or discipline, had plunged zealously through the press of people, and shouted for volunteers to storm the palace and do justice on Cos, the monster. The air was rent with the shouts of those who were anxious to comply—some for sympathy with Maie, who was neither unknown nor unrespected in the community; some for hate of Cos, who had been arbitrary and oppressive for years; and some for the chance of loot and excitement. They drew daggers, flourished sticks and cobblestones. Others, drawn by the commotion, ran in from byways and adjoining squares and streets, then joined the group without real realization of what the disturbance was about.

The mob, with Maie's soldiers at its head, tramped loudly along the main

thoroughfare and came to a small party of Cos's guardsmen at an intersection. This detachment mistakenly called on the mob to stand. There was a brief, cruel clash, and the men of Cos were slashed and pounded to pieces without exception. Citizens, exultantly blooded, caught up the armor and arms of the slain. "On to the palace!" went up a concerted cry. Maie, the cause of the business, was already forgotten.

SHE ran, a lone and lithe figure, up a ramp and away toward the terraced height where Cos sat awaiting her, all unaware of the danger below. Pushing past the sentry at the gate, she came into the courtyard and faced Cos, who had summoned a barber to trim his singed beard. He looked at her with a sort of tigerish zest, that had very little of love in it.

"It is time you came here," he grumbled. "Hereafter there will be no misunderstanding between us. I am the master, and you—"

"No time for that," she panted. "Danger comes—men, armed and angry—are after your blood."

"Huh!" He stared stupidly at her, and pushed away the barber. "What are you talking about?"

"Listen!" she bade him.

He listened. There was a sullen mutter, growing to a roar, from the levels below.

"What trick is this?" snorted Cos, jumping up. His sentries also pressed forward, listening. The threatening note in the racket was unmistakable, and all pressed out into the open, Cos prudently coming last. They moved toward the edge of the terrace, to peer down, when the answer to Cos's question came on fagged but scurrying feet.

A soldier dashed up from the city below. He was a mass of sweat and blood, his armor cut and smashed, his

spear lost. He almost fell at the feet of Cos.

"Master, master!" he gurgled. "They fight, they kill your servants, they cry out for your life!"

"Rouse the town!" thundered Cos; but it had already risen, and more of it against the tyrant than for him. The conflict was loud enough to convince any ear. Cos turned upon Maie.

"This is your doing," he accused and put out a hand as if to clutch her shoulder.

At that moment there was a multiple scamper of feet, a chorus of howls, and the first of the revolutionists mounted the terrace. They saw Maie in the grip of the tyrant, and their angry shouting made the air shake. A spear sped at Cos, to be narrowly deflected by a guardsman who struck it aside with his own weapon. Then, at Cos's shouts, the soldiers of the palace poured forth, and battle joined on the very lawn in front of the ruler's dwelling.

Again forgotten, Maie ran for the second time. There was only one avenue of possible escape—the slanting way up the barrier to the sea above. And she took it because she must.

But before she had mounted far, cries rose behind her. The soldiers of Cos had begun to turn back the rebels, and some could be spared to pursue the woman who was being blamed for it all.

The pursuers gained, for Maie was only a woman, and badly spent. She doubted if she could reach the top—yes, she was almost there—but her way was barred, by a fierce, towering figure. He lifted a missile, a great piece of stone, and hurled it.

It buzzed past her, and clashed on armor behind. A moment later the giant had run down, and seized her to help her along.

"Are you hurt, Maie?" asked a voice she knew.

"Hok!" she whimpered gladly. "Oh, Hok!—" And her weary arms sought to embrace him, the rest of the world forgotten; but he thrust her away and up to the head of the slanting trail.

"No time for that. We have fighting to do."

CHAPTER VII

When Hok Came to Bay

AS Maie had mounted upward, pursued by a leash of Cos' soldiery, Hok had seen, understood, and prepared. Quickly he had gathered as many big rocks as he could find, heaping them at the very top of the sloping trail. Now he began to hurl them. The heavy missiles, propelled by all his oaken strength, made themselves felt even through hammered helmets and linked breastplates of bronze. One or two of the foremost pursuers fell, badly hurt. The others paused, and Hok launched his chief dissuader—a rounded boulder, a leg's length in diameter.

A heave and a shove started it, and down trail it bounded and plunged, sweeping three men along with it.

The others flung spears at Hok and Maie. The girl took a bronze point in her upper arm, but Hok dodged one shaft, caught another as was his wont, and threw it back to transfix an enemy. That was enough to halt a second volley. The soldiers hung back, cagy and nervous. Hok flourished his diamond-headed club.

"Come and fight!" he taunted them. "You are easier to kill than flies!"

More were approaching from behind, but those at the forefront tried to shove their comrades back. It caused a press not many men's lengths beneath the place where Hok stood to hold the trail. Thus things might have hung in abey-

ance for an indefinite time; but Maie, behind Hok, looked up from cherishing her wound. She screamed.

"Hok! The priest! Beware—"

Hok spun around. The eagled-faced man who had served Ghirann had crept up, his robes kilted in one hand, a bronze axe in the other. He struck, but not soon enough. Hok stooped under the downward sweep of the axe, caught him at the waist with an encircling arm. Plunging back toward the trail, he found the soldiers rushing up toward him.

He hurled the priest, like a billet of wood. The man's body mowed two men from the head of the trail, then flew from the path into the abyss. A shriek trailed upward as the wretch vanished. But others had gained the top of the barrier, were deploying to attack Hok as hunters might attack a lion or bear.

Hok made a lightning decision, shot out a hand to catch Maie, and ran swiftly back toward the mountain. His flying feet outdistanced the none-too-eager servitors of Cos, and there was



Seizing a huge boulder in his hands, Hok hurled it down upon the soldier snatching at Maie.

considerable margin between him and his enemies as he gained the mouth of the cave where the thunder weapon was made.

At his roars and club-flourishes, the score and more of toiling slaves wailed and scurried out like rats surprised by a hungry ferret. Hok motioned to Maie.

"Into the cave," he directed quickly. "It is full of the thunder stuff. We can fight off nations."

They ran in, gazing around in the light of the fire. Maie uttered a despairing groan, and shook her dark head.

"It will not serve us," she said. "Look!"

Lifting her unwounded arm, she pointed to the great heaps of powdered black material that almost filled the back of the cave. "The thunder dust is loose, not in round balls," she said. "We cannot throw it. I might have known that Cos would not let the weapon be finished anywhere but in his palace—up here an enemy might come and gain advantage over him."

"We can still defend this cave," said Hok, and sprang back to the entrance. His big bulk almost filled it.

The first rush of men was upon him, and his heavy diamond club hummed as it struck once, twice, smashing two craniums. The bodies fell across each other, and Hok caught up a weapon in his left hand, one of the cleaver-like swords of Cos' bodyguard. He flailed at the oncoming band with both weapons, cutting a third man almost in half and breaking the arm of still another. The rest gave back. They had to.

"Spears!" roared someone, and Hok dropped the wise stone from his right hand in time to snatch yet again a whistling shaft, reverse it, and send it through the body of its hurler. Then he dropped to one knee, quickly dragging the bodies of his dead into a pro-

tecting heap in front of him. The press of soldiers—there were at least sixty or seventy by now—again drew back, staring in panic. About Hok and his dead hung a certain atmosphere of uncertain, superhuman horror.

"He is invulnerable," muttered one.

"Yes—was he not sent to be eaten by Ghirann? Could not even Ghirann finish him?" And the murmurs grew.

Then there was more commotion, and into the heart of the group hurried a figure with gold on head and arms, with a dark face and a lopsided black beard—Cos, the tyrant. His men below had beaten the undisciplined throng of rebels and was driving it through the lower levels of the city, and he had come aloft to see what happened on the barrier. His eyes blazed as he stared into the cavern, and saw Maie staunching the blood on her arm.

"Who hurt the woman?" he bawled.

"I want her."

"You can never have me," Maie cried back to him.

Cos gestured angrily. "Why do you all stand like fools? Go into the cave and fetch her out."

"They are sick of trying," Hok informed him.

Cos gave new orders: "Throw no more spears. Capture Maie alive, but cut that big savage to pieces."

"He is a devil," protested a white-faced soldier, who felt that he had had more than enough of fighting with Hok.

"Do you fear him more than you fear me?" demanded Cos angrily. "Charge him!"

A full dozen obeyed. Hok, meeting them, was hard put to it to defend himself a rain of blows, much less speed returns. But help came. Maie, catching up a hoe-like tool from the floor of the cave, rushed pluckily. She came to Hok's right side, and with a sweeping stroke brought down a guardsman.

Others turned blindly upon her, striking and stabbing, and Hok in turn belabored them. Once again there was a reeling backward from the cave-mouth, now half-blocked with bodies. Cos, safely out of reach, was again able to see what had happened, and he cursed wildly.

"Fools! You have killed her!"

IT was true. Maie, the fair chieftainess whom a ruler had coveted, lay dead. Her body was stabbed through with spears, her head was bitten open by a chopping-sword. There was silence. Hok and Cos gazed at each other above the heap of mangled bodies, as fixedly as though they were the only two men left in the world.

"You have been the reason for her death," said Cos, in a cold voice of accusation.

Hok wagged his bright-thatched head. "That is a lie, as is almost every word you speak. It is you who made her die. A quick death, and now she is happy with the Sky-Dwellers—safe out of your hands, Cos the liar and coward."

"Ghirann shall punish you," gritted the ruler of Tlanis.

Again Hok made a sign of negation. "Can Ghirann punish his punisher? Look yonder in that cave, that is half-full of water. Ghirann, whom you called your brother, lies pounded to nothing. And I did it—I! Hok, who brings woe to you and yours!"

Somebody moved through the crowd to Cos's side. It was the red-kilted imbecile who had been a servitor of Ghirann and Ghirann's priest. The foolish head was wagging, to corroborate Hok's story.

Cos turned back to the cave chieftain. His soft red mouth broke open in an ugly grin.

"Your life is forfeit, stone-chipper,

before you bring more calamity on us," he said in a voice that choked. His hand reached out, the fingers snapped. Someone gave him what he wanted—a bomb, with hanging fuse. Another offered a blazing lamp to kindle it.

But a frantic chorus of protests rose. "No, master! No! Throw nothing! He will seize and throw it back!"

"That is the truth," Hok assured Cos. "I have been doing it all day."

The tyrant of Tlanis gazed wildly about him. "Someone must charge him," he said. "Charge and hold him, so that he cannot catch the thing. Who goes?"

Only one dared rush upon death—the madman, who was too foolish to fear. He leaped forward and at Hok, grappling with monkeyish strength. For the moment Hok was busy tearing him free, then swung the Wise Stone against the idiot head. In the meantime, Cos laughed as Death laughs, ignited his fuse, and whirled the bomb backward for a cast.

Hok saw, and with his left threw something on his own account—the bronze chopping-sword he had caught up. It sang in the air like a deadly insect, and struck home. Cos remained briefly upon his feet, but of his head remained only the black beard, the grinning red mouth. The rest flew away like a nut falling overripe from its tree.

In death, his hand still moved to throw the bomb, but it went high. Diving beneath it, Hok landed in the thick of his enemies.

The lump of explosive intended for him went sailing, all a-sputter, into the cave he had quitted.

He broke a skull, another, with the Wise Stone. As he whipped it up for a third blow, he heard a voice shriek: "Fly! Fly! The cave is full of thunder dust—it will take fire—kill us all—"

And Hok, remembering that the

bomb had fallen in the one place where it would wreak the most damage, stopped fighting and ran. He clove a way through the press as a knife speeds through water, and began to run northward along the causeway. So did some others. But it was too late.

The bomb exploded. Then came a greater explosion—the great hoard of thunder dust. Then a third—the volcano itself. And the doom of Tlanis was sealed.

CHAPTER VIII

Home Is the Hunter

HOK had thought only of getting away. The soldiers of Tlanis had thought only of returning to their city under the barrier. This difference of desire resulted in his escape and their destruction.

As Hok raced northward along the rocky shore, the voice of the bombarded mountain bellowed behind him, filling the earth and the sky with noise. The shock of the first explosion made him stagger, the shock of the second threw him flat. He scrambled up again, shaking off the dizziness. The air was suddenly full of pungent vapors. The volcano was spewing smoke and fire.

For the cave-full of explosive had acted as a greater bomb than any man of that age could conceive. It drove deep into the heart of the mountain, liberating a rush of red-hot lava.

The warriors of Tlanis dashed along their sloping trail to the levels below. Thus hidden under the overhang of the barrier's height, they did not see the destruction that was upon them until the immemorial sturdiness of rocks dissolved and dashed them down, forty or fifty of them at once.

For the new upward rush of the subterranean fires had split open the slopes

of the hollow mountain. Water from the sea flung itself upon a world of molten rock, fluffing away into live steam. The tortured rocks and slopes shook and writhed, like a huge animal in pain, then disintegrated.

Probably many in Tlanis—the merchants, the nobles, the soldiers, the beggars—died before they knew that the wall above them had changed from stone to water, and was descending to crush before it overwhelmed. Others did see, shrieked and ran. They were overtaken and obliterated before they could reach the gates. Tlanis, built for an age, was being washed away like a scattering of leaves in a spring freshet. The blue teemings of ocean, crowding through the widening rent in the barrier, deployed to flow out and down valley.

Hok, still running like an antelope, realized that the waves no longer beat against the shore at his left hand. They raced to his rear, to the south, scrambling and fighting like live things to find and pass through the hole where the mountain had burst. The sand-plugged stones under his feet ground and gritted together. They, too, would go before long.

Hok's mind, trained to face and deal with danger, told him that he had best get away from this sea-assailed rampart. He did not slack his windy speed, but his eyes quested ever and again to the right, the landward. And eventually he found what he sought—a sloping ledge that dropped away, like that other one now disintegrated and drowned, that had given descent toward Tlanis. Hok raced down it, sprang at the end into a lofty treetop, and swarmed down to the brown soil of the valley. He resumed his running, ever to the north and the higher ground. At length he came out on the brow of a rise, and stopped to look.

The sea had taken possession of the

valley's bottom. It rushed in a fierce, foul torrent, full of uprooted trunks and leafage, masses of turf and muck, the bodies of trapped animals, either slack or struggling—yes, and the bodies of men. Overhead flew screaming clouds of frantic birds. Beyond all this Hok could see the barrier, its gap now torn as wide as the whole of City of Tlanis had been, and widening. There was the greatest swirl, through which still burst the angry jets of steam and smoke from the riven volcano.

The water rose visibly as he paused. He dare not stop to see more.

But, as he turned away to run still farther, a sound broke forth beside him that made him jump, then turn gladly. It was a whinny, the voice of a horse—one of the horses of Tlanis, a servant and worshipper of man.

It came trotting to him, trailing a broken halter—a trembling brown beast with wide, worried eyes, glad all over to see a man still alive, already trusting Hok to avert danger and death for them both. Hok held out his open hand, and the animal put a soft nose into it.

"Shall we go together?" asked Hok, as though the beast could understand. He thrust the handle of the Wise Stone into his belt, seized the end of the halter, and vaulted upon the willing back. Then, with drumming heels, he urged his steed away to higher ground still.

On he rode, until the poor horse panted and stumbled, and the sun dropped down. The day was dying, and Hok took time to remember that at mid-morning he had first set eyes on Tlanis. A day's adventure and strife beyond imagination—and would he live to see the sun again?

HORSE and man camped because they could budge no further, among hills that gave like buttresses upon the slopes of mountains. Hok

slept, exhausted; but twice he awoke, shuddering, from ill dreams, and the gray dawn showed him that all the upward slope over which he had galloped was drowned, with the sea come in to fill, from horizon to horizon, that vast valley which had known the rule of Cos and the worship of Ghirann. The water still climbed after him.

A second day he urged his horse to the slope, and a second day the sea crept in pursuit, but more slowly. At noon of the third day, he was aware of no chase. The sea was finding its depth, was content with its conquered lands.

He came to a forest of pines and beeches, a forest he thought he knew. Not far away would be his own country.

At once he dismounted from the brown horse. He drew off the halter that was its badge of servitude, and started away on foot. There came a clop-clop of hoofs. He was being followed.

Turning, he faced the animal. "Go and be free," he bade it solemnly. "I cannot take you to my people. They do not use horses, except to eat."

The horse gazed as though it understood, but made to follow again. Hok shouted, and it came to a halt.

"I tell you to go another way," he said sternly. "My country is bad for horses. Not only men will eat you, but lions, bears, tigers, Gnorrls. You are safe from me, because you helped me escape. But not even I can protect you."

Again he walked away, for a good hundred paces among the trees. Then he glanced back. The horse remained where his voice had last halted it, as though it was loath to bid him goodbye.

When Hok returned, after some days, to his home in the bluff-surrounded cave that fronted the half-moon beach and the river from whose brink he had

driven the Gnorri people, all his tribe came to stare respectfully.

"You have not been gone more than a moon," remarked Zorr, his father-in-law. "Yet you have many new scars. Was there a fight?"

"There was a fight," replied Hok. He felt like deferring the story until he had rested.

Oloana came forward, curiosity mingled with the adoration in her eyes. "What is that thing on your wrist, the thing that shines?" she asked.

Hok undid the string of beads.

"It is gold," he said. "A woman called Maie gave it to me."

"A pretty woman?" demanded Oloana quickly.

"Not as pretty as you," Hok assured her, with something like marital diplomacy. "She is dead. I kept her gift for you. It is to be worn on the neck."

Oloana donned the bauble, and asked other questions, but Hok never had much to say about Maie, then or later. Today her name, as Mu or Mou, or Maya, is a name of mystery.

Zhik arrived from the hunt, to greet

his brother heartily, and to him Hok presented the bronze dagger that he had taken from the priest of Ghirann. For himself he kept, forever after, the Wise Stone in its wooden handle, as a war-club hard enough to crush the toughest skulls of man or beast.

And finally he came to his cave, and sat alone by the fire in the entrance. It was quiet there, and he began to yawn. A patter of feet sounded from the gloomy interior. There emerged a plump little entity, with a shock of hair as pale as frosted barley grass. In one chubby fist was clutched a toy spear of wood.

"My son," said Hok.

"Father," came the solemn response. "Will you tell me a story?"

Hok drew the boy to his knees.

"I will tell you," he began, "a story which you must remember as a great marvel. When you have children, tell it to them, and they will tell it to their children. It is the story of Tlanis, the home of many strange and wonderful things, and of how the sea drowned it and them."

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GULPERS VERSUS

**ONLY a woman could
have used the tactics Sarah
Tugg used against the Gulpers**

**By
FRANCES
GARFIELD**

DON'T you dare talk back to me, Sam Tugg! You should be ashamed to face me after bringing me away out to this forsaken corner of the universe, and me giving you the best years of my life—slaving for you day in and day out, from early morning till late at—”

The two sun-stars that are Alpha Centauri glowered down from the lavender sky as though they hated this largest planet of their system. Sam Tugg, his thick body stooped among the primrose-colored tufts of his half-acre crop grimaced in sheepish protest.

He had heard the tirade often before, but he could never grow accustomed to it.

The house opposite him was an ugly gray box, one of the asbesto-steel fabrications so often shipped out and bolted together along remote space frontiers in the thirty-second century. It had no gables, no eaves, no shutters, nothing to relieve the practical plainness of its rectangular construction. No lawn, either, only a stretch of crumbly red soil around. Inside were three rooms, with meager conveniences that suggested the twenty-second century in-



EARTHMEN



The Gulper had no opportunity to fire as Sarak swung the hoe.

stead of the thirty-second; an atomic cooker, a glassite sink, table and chairs and beds of ancient chromium plate, and no television at all, only a radio that must have been more than a century old. Here at the back, the upper and lower halves of the Dutch door were both swung open and fastened back, so that Sarah Tugg could stand on the threshold and lash her tired husband with her tongue.

She had been good-looking once, and some of the looks remained. She was tall and straight, with a disordered thicket of red-gold hair above a fierce face. Her elasto-fabric frock was stained over with cooking, and one sleeve was ripped away, showing a round arm that must have been as powerful as Sam Tugg's own. Her slanting blue eyes glittered with scorn.

"I don't know how I stand it," she dinned at him. "Me, that could have married a store superintendent back home in Peoria, and had servants of my own. But I was fool enough to believe your fine talk, and after we were married nothing would do you but to come out here, to this spinach farm five long light-years away from—"

"We're only four and a third light years away from Earth," defended Sam Tugg plaintively. "And listen here, Sarah," he added, his voice growing grieved over an old argument, "I want you to quit calling this butterflower 'spinach'. It's the richest and most varied vitamin contained in the known universe, worth its weight in gold at the extract laboratories back home. In five years we'll have grown and sold enough to buy out ten stores like that one in Peoria."

"I say its spinach," persisted Sarah bleakly, "and I say to bell with it." The rejoinder was neither elegant nor original, but it disposed of her husband. He bent and hoed defeatedly at the

roots of his butterflower tufts. The woman emitted a sort of triumphant sniff and withdrew into her kitchen, where she measured water into a cooking pot.

Sam Tugg, left alone in the light of the double sun, dared not sigh in relief, dared not gaze away toward the horizon. There was nothing to see, anyway, between the house and the range of low, red hills afar—only scrubby thickets like sheafs of great bottle-brushes, expanses of hare brick-colored soil, and the winding green brook. Once all this had seemed exotic to him, a land promising adventure and fortune. Now, after a year of toil only twice interrupted by the visit of a patrol-rocket, he was beginning to agree with Sarah about it.

AS he swung his hoe in unenthusiastic rhythm, Tugg was no figure ever dreamed of by science-fiction enthusiasts of a millenium before. No hero this, towering and handsome and far-gazing, settling the fate of galaxies with careless strength; only a sturdy, half-stupid farmer in patched overalls, who had failed at home on Earth and signed papers to spend six years growing butterflowers in this remote nook of space. Of course, money would be forthcoming at the end of the term—but what about the intervening seasons of work, loneliness and tongue-lashings by Sarah?

For one thing he was thankful, there was no danger to complicate life. If there were savage beasts, if the natives of the planet had remained hostile, Sarah could never stand it, and he could never stand Sarah. As they were, things were as bad as they could possibly be, right up to the micrometric limit.

Maybe the Gulpers were right—the Gulpers, who had ruled this planet in squalid supremacy until the Terrestri-

als came, a century ago, and conquered them in brief, terrible battle. They, the Gulpers, had called the butterflower deadly poison, avoiding even its odor, and through the ages had done their best to exterminate it. Indeed it was for poison that Earth's chemists had first analyzed and tested the rare specimens found, and had learned that the Gulper's poison was the Terrestrial's life-giving meat. But just now, Tugg hated his work and the yellow blooms among which it lay.

He squinted momentarily up into the lavender sky, and found nothing there to inspire him. He remembered the flamboyant praises he had once heard, of the empire-building pioneer; but suppose he built an empire, suppose he even conquered and possessed this entire planet—then what? It was only a lump spinning in the immensity of space, a scant seven thousand miles in diameter, and semi-arid at that. Its one source of wealth was the butterflower, of which he had had just about enough. If he owned all of this dreary world, he'd probably be called the Butterflower King at home. He grimaced. That was a long way from a heroic title.

Better had the stuff been killed off, and he left on Earth to be an underpaid farm hand. Better, too, if he'd never met Sarah, and she had married that store superintendent. . . .

But a small body moved in the open door, and Tugg knew that he didn't mean that last wish.

"Daddy!" shrilled his son. "Can I dig, too?"

"Come on," granted Tugg, his heavy face crinkling at once into a grin of welcome.

"What's that over there?" temporized the youngster suddenly, and half shrank back into the doorway.

Tugg swung around to look.

Figures were moving at a little dis-

tance, emerging from the depths of a bottle-brush thicket. One, two, three, four, grotesquely human and the color of stale mustard. Those would be Gulpers, the degenerate people of the planet. They showed themselves, but kept their distance. Sam Tugg did not fear them in the least. "Come on, Johnell," he called to his son. "They're only Gulpers."

The boy was moving closer, on sturdy bare feet, and his round face was serious with the sort of problem that vexes a three-year-old. "Daddy," he prattled, "why is my name ugly?"

"Ugly?" repeated the father, and half-straightened up from his work. "Your name isn't ugly, Johnell. It's nice."

"Mummy said ugly," Johnell informed him. "She said—like your ideas. All your ideas."

"Well, Mummy is—" Tugg broke off. Even so far out of Sarah's hearing, he dared not call her mistaken. "You're named for a great man, Johnell," he temporized, in a solemn voice. "A great man. John Ell Sullivan."

"I know." The little head nodded. "He was a fighter. Did he fight Gulpers, Daddy?"

Tugg smiled again. "No, he lived before the Gulper War."

"Martians?"

"No, he lived even before the Martian War. A thousand years ago. He wasn't a soldier at all. He fought with his fists."

The fighter's little namesake nodded, as before. "He fought with his fists," Johnell repeated. "Why?"

"Because he was a great champion," said Tugg. "It was his business in life, like digging butterflowers. Only he was the greatest fighter that ever lived. We remember other great fighters only because John Ell Sullivan beat them."

"He always beat them," said Johnell

"No," demurred his father. "Once he was beaten by a man named Lord Lonsdale, and once by a man named Corbett."

"Were they better fighters than John Ell Sullivan?"

"No," said Tugg again. "Those were fluke fights. John Ell Sullivan was the greatest fighter that ever lived. And you're named after him."

"Oh!" The round little face grew bright. "Let's go tell Mummy."

Tell Sarah that he had disagreed with her!—Tugg's face at once grew blank with apprehension. "No, no. Don't say a word."

"I want to," begged Johnell.

"Don't say a word to your Mummy," warned Tugg. "If you don't tell her, I'll give you something nice." He threw down his hoe.

"What?" Johnell thrust his chubby hand eagerly into his father's grasp, and together they went to the kitchen.

Sarah was in the front of the house, Tugg could bear the emphatic commotion of her cleaning. Here was no sound save the preliminary bubbling of the covered pot on the cooker. Tugg moved gingerly to a locker in the corner, opened it, and took out a sealed tin the size of a deck of cards.

"What's that?" asked Johnell, with relishful anticipation.

"Candy—chocolate," his father replied.

The voice of Sarah made itself heard through the wall. "If you're making a mess in there, Sam Tugg," she warned, "you'll clean it up yourself."

Tugg lifted his shoulders in silent capitulation, again took Johnell's hand, and led the boy into the open again. They headed back toward the butterflower patch, both occupied with opening the tin of chocolate—so occupied, indeed, that they almost collided with a knot of figures.

"Wait," urged a hoarsely liquid voice. "Wait, Earth man. We have something to say."

TUGG looked up, in the very act of offering the candy to Johnell. He stood in the very midst of the four Gulpers, who had ventured thus close to the house. Casily they stood clear of the butterflower patch, but other wise seemed to have neither fear nor shyness of human beings and affairs.

They were like great, misshapen toads standing erect. Scientists had surmised that these beings had once lived amphibiously, until ages of double sunlight had scorched the planet almost as dry as Mars. Their triangular heads, with blob-eyes, slit-nostrils and great narrow-lipped mouths, set on shoulderless torsos with scrawny, twig fingered arms to either side. Lower down the body grew clumsily heavy, with a gross bladder of a paunch, fleshy legs and toeless feet like flat kites. The naked skin was buff-colored, marbled over with purple blotches, like some sort of loathesome birth-marking. All of them were taller than Tugg.

"We come to help," said the tallest in the throaty blubber-voice that had given his race its name. His abdomen, from which he breathed, stirred and distended with the effort of speaking. The other three nodded agreement.

"Help?" repeated Tugg, staring. The Gulpers had learned long ago that the Terrestrial invaders were too deadly to fight, but they had never particularly accepted defeat. Tugg felt mystified and a trifle apprehensive. Yet he saw no weapons, and the creatures wore no square inch of clothing to hide gun or ray-thrower.

"Go away," spoke up little Johnell, staring with babyish dislike at the visitors.

"Wait," gulped the leader once more.

"We know about butterflowers, Earth man. Lots."

Tugg brightened. "Yeah? Whereabouts?"

A twiglike finger pointed horizonward. "Out there. Lots. Near where we live."

Tugg was more mystified than ever. Gulpers were extra careful to dig their cavelike dwellings where Terrestrials never came. "I thought," he said, "that you Gulpers never grew—"

"I know. Butterflowers poison us. These are wild ones. If you cut them all away and sell them, we will never have to fear to walk in that place."

That made the business logical, with profit to all concerned. "Okay, friend," said Tugg more cheerfully than he had ever addressed a Gelper before. "Lead me to it. Johnell, you run to the house, and stay with Mummy."

"Bring the young one along," urged the leader, and again the other three nodded.

"Nothing doing, he stays at home."

The four creatures looked slyly at each other as he spoke, then moved quickly and concerted upon him. "Hey," he yelled, "what's the idea?"

For the three subordinate Gulpers, hitherto silent, had opened their wide lips. Each froglike mouth had belched a weapon into a froglike hand—one suddenly leveled a vertigo-ray, the other two flourished electro-automatic pistols.

"Where'd you get those arms?" challenged Tugg. "Stole 'em from Earth people, huh?"

"We killed your nearest neighbors for them — yesterday," said the leader levelly. "You are our prisoners."

Johnell's little mind grasped something of the menace. He dashed, squealing with fright, for the house. The unarmed Gelper leader moved quickly to head him off.

"Don't you touch my kid!" roared

Tugg, and rushed at the Gelper.

Almost on the instant he plunged into a nauseating whirl of unbalance—the Gelper with the vertigo-ray was playing it upon him. The powerful force was disrupting the gravity-poise of his internal organs, making him stagger and thrash sickly. The other two, dropping their pistols, clutched at his arms, dragged them backward, and with his own overall-straps bound his wrists. Then the ray flickered off, and he was able to command his feet to hold him erect, his tongue to curse with fine Terrestrial rage his captors.

Meanwhile, the leader had overtaken Johnell, scooped him up in scrawny arms, and was carrying him back, kicking and squalling. A twig-fingered paw groped across Johnell's mouth, stifling the childish cries. "Words will not help you, Earth man," he informed Tugg.

Tugg recognized the fact. He collected himself, physically and morally, into calmness. "What are you going to do with me?" he demanded, as bravely as he could.

"Kill you."

Once again the three other Gulpers nodded affirmation, and their big eyes burned orange, like coals stirred up.

But they had not killed him yet; they were holding him prisoner. Tugg hopefully wondered why, and then the leader seemed to read his mind.

"You will have your choice of deaths," he informed Tugg, while stooping and picking up the two fallen electro-automatics in his free hand. "If you tell us where you keep everything of value in your house—food, weapons, tools—you shall die easily. If you refuse, we will kill you slowly and painfully."

"You don't dare." Tugg tried to make himself believe it as he said it. "I'm alone now, not another Earth man within four hundred miles; but one of

these days the rocket-patrol will check around, to pick up my harvest and find out how I've been doing. What will happen to you when they find my dead body?"

"They will not find it," the chief Gulner informed him. "We will bury you."

A new voice broke forth, strident, and accusing:

"Well, Sam Tugg, now you ought to be satisfied! We're all going to be murdered!"

THE Gulpers turned toward the open door. Sarah Tugg had come out, round arms akimbo, red hair disordered, face grown pale except for a blotch on either quivering cheek.

The three unencumbered Gulpers made a move toward her, the foremost leveling his vertigo-ray.

Sarah flung wide her arms, as though courting destruction. "Go ahead!" she incited them. "Kill me, a poor, defenseless woman, without an opportunity to lift a finger to save herself! Kill me, you brave, unconquerable heroes!"

This loud invitation patently dashed the creatures, who paused where they were. The one with the ray apparatus lowered it, and turned toward his leader. That worthy, in whose grasp Johnell now lay in the frozen silence of abject fear, quickly blurted out an order in his own uncouth, liquescent tongue. The others stood quiet and relaxed as Sarah came nearer.

"What was that he said?" she demanded.

"I told them that you are an Earth female, and cannot fight," the leader addressed her.

"No, there stands the fighter of this family, all tied up like a Christmas package," she half jeered.

"We are glad that we have caught a female of the Earth people," remarked the chief Gulner, and Tugg thought he

could detect irony in the slowvering syllables. "This male might prove hard to persuade by torture. But females are soft. This one will talk."

"You don't dare," Tugg blazed at him again.

The leader looked at his companions. "We killed four Earth people yesterday, for their weapons. It was easy. We will not find you difficult." He clinked the two automatic pistols together in his hand.

Sarah's bitter blue eyes fairly raked poor helpless Tugg. "You understand what's going to happen. Sam? They're going to kill you and me, and Johnell too, just because you couldn't keep a halfway decent guard."

A single phrase of that indictment drove through the stunned despair of the pinioned man. He suddenly turned upon the Gulpers, who stood holding his child.

"Listen," he pleaded shakily, "go ahead and kill me. Cut me into ounces if you want to. Burn me to death. But let the kid live. Please, please!"

"Do not worry," his captor responded. "Your young one is not going to die."

"Do you mean it?" cried Tugg, in sudden glad hope.

The Gulner shifted Johnell's little body in his embrace, and achieved something like a mirthless giggle. "No, he is going to live. It is for him that we came to this place."

Tugg stared, and Sarah checked a new volley of harsh speech. The Gulner went on:

"He is young, his mind can be formed." Triumph was manifest in that wet flow of words. "He shall be brought up among us, to live like us, think like us, fight like us. When he is grown—" Again that nasty giggly sound. "When he is grown, he will help us. Help us against you Earth people."

"What do you mean?" gasped Tugg.

"Is it so hard to understand?"

queried the Gulper. "We are ready to fight back. You have taken our world away from us, planted it with deadly poison, peopled it here and there with your kind. Now it is our turn. We are going to kill you and take all your useful things from that place in which you live. Later, we may kill other Earth people as we catch them alone. More of our own race will quickly rise to join us."

Tugg, bound as he was, could not help but sneer.

"You Gulpers tried to fight us once," he reminded. "Apparently the lesson you learned was good for only fifty years. After this new war you'll remember your manners for fifty centuries. The Earth people will give you something to gulp about."

One of the three subordinates apparently understood, but could not lay his slobbery tongue to enough English for a retort. He stepped close to Tugg and struck the helpless man's face with his slimy palm, and the leader made his chuckling sound.

"We did learn one lesson," said he. "We shall fight a wise war, and if some are killed, others will live to plan more fighting. Meanwhile," and he lifted Johnell in his arms as emphasis, "this young one will also live, among us."

"You'd'll never get away with it," Tugg shouted hysterically.

"In mind and heart he will be one of us," continued the gulping voice, inexorably confident. "In appearance he will be one of you. As a spy, a scout, a hostage, he will betray you Earth people to us."

Tugg swore, and struggled vainly with his bonds. "He won't be a traitor to his own people," he snarled.

"But he will."

"Johnell," Tugg stammered in agony, "listen to me, son. Remember what I

say, because it's the only last thing I'll ever say to you—"

But Johnell's eyes, wide and bright, showed only mystified terror. He could not understand his father's appeal. And all four of the Gulpers made their awful approximation of a mocking snicker.

But Sarah was turned back toward the house. "Good heavens!" she muttered suddenly, and made as if to head for the door. Two of the Gulpers barred her way.

"Let me past, you fools," she scolded them, much as she would have scolded her husband. "My dinner's on the stove, it'll boil over."

"Let it burn," the leader said to her. "You cannot live to eat it."

SHE stared at him, at Johnell helpless in his arms, at her trussed husband. Then, suddenly, she threw back her head and burst into loud laughter, hearty and not truly hysterical. The Gulpers stared in apprehensive surprise, and Johnell's gaze turned wildly toward his mother.

"Oh, it's too funny!" she gasped hoarsely, between peals of mirth. "Just—too funny. That's the one thing I was dreading—that dinner!"

"You're going crazy, Sarah," moaned Tugg.

"No, but it's too ridiculous! That mess of butterflower I put on, the stuff I hate worse than spinach—"

"What did you say?" interrupted the chief Gulper, almost letting go of Johnell in sudden agitation. "Butterflower?"

Sarah was holding her shaking sides. "Yes, yes," she groaned, "butterflower—"

"But it is poison—even the steam! That cooking must stop!" His level serenity completely drowned in hysterical fear, he yammered a quick sentence of command to the others, who emitted

throttling cries of apprehension. Another authoritative shout, and they ran in a knot toward the kitchen door.

"Wait," Sarah called after them, and ran, rather stupidly, at their heels. But she paused just as the last of them sprang across the threshold. Instead of following them into her kitchen, she quickly flung aside the catches that held open the two halves of the Dutch door. Slamming the panels shut, she dropped into place the stout hooks that held them fast from outside.

Almost at once there were inarticulate yells and poundings from within, but Sarah Tugg paid no attention. Swinging around, she tramped with purposeful speed back toward where stood her husband in his bonds, and the chief Gulper with Johnell in his arms.

"Let them out of there," the leader commanded her. "At once."

She did not reply, did not look at him even. Striding past, she bent and caught up something at the edge of the butterflower patch—the hoe Tugg had flung down when he had gone to fetch the candy for Johnell.

"They're all right in there for the time being," she announced briskly. "I locked the inside door and all the windows before I came out here." The self-congratulation died out of her voice and her eyes, fixing themselves on the captor of her child suddenly glared with the white heat of acetelyne torches. "We're on a little evenner terms now, huh, Mister Gulper?"

The hoe lifted its blade in her strong hands, like the questing head of a serpent.

Cagily the Gulper backed away. Johnell was suddenly squirming and whimpering again. With one broomstick-lean arm, his captor hoisted him high as a shield, while his other hand tried to bring an electro-automatic pistol to bear. Since he held two of the

weapons in one hand, and would not drop one, he was momentarily clumsy.

"Be careful," he warned throatily. "If you hit me, you may hurt this young one."

"I guess I won't." Sarah whirled the heavy hoe in a sudden slashing arc—not at his head, before which he dangled the boy, but at his shins. The hoe-blade, sharp as an axe, came home with a solid *thunk*, the Gulper's huge lipless mouth flew open in a wild, liquid shriek of pain. He bent over, dropping both pistols, spilling Johnell from his unnerved arms. Immediately Sarah struck again, and higher. The edge struck the blotched jowl of the creature, cut through and through. For a moment the chief Gulper stood still and half-erect, and nothing of his head remained except his gaping mouth. Blood, a darker and thicker red than Earth blood, purred stickily forth. Then the ungainly body fell in a floundering heap.

To the commotion from the kitchen was added the frightened weeping of Johnell and the amazed cursing of Tugg. His wife dropped her gory weapon, hurried to him and began to fumble with his bonds.

"What hard knots," she grumbled. "Those Gulpers can tie like bo'suns. . . . There, you're free, Sam." As he rubbed his unleashed wrists, she snatched up the hoe once more.

Sam stooped and caught up a pistol in either hand. "Let me handle that bunch inside," he said to Sarah.

"I'll do nothing of the sort," she snapped. "You stay here and take care of Johnell. Listen to the poor little thing cry." And she turned back toward the hooked door. Sam Tugg, gathering his boy into his quivering arms, noticed for the first time in his life how broad and high were Sarah's shoulders.

SHE struck the wall with the hoe-blade, smearing blood on the stucco-like composition. At once the noise within abated. "Hey," she called, "any of you in there speak Earth talk?"

"Yes," came a muffled gulping. "I talk—a little. Let us out."

"I will if you surrender." Her voice was cold. "Say it—say 'We surrender.'"

"We surrender," was the ready reply. "This fire in here—can't turn it out—"

"I knew you couldn't," she informed them. "That automatic stove won't budge one way or the other except when I coddle it. Sam never would buy me a proper one."

Poising the hoe in one hand, she unlocked the lower half of the door with the other, but still held it shut.

"Listen carefully," she admonished her prisoners. "I'm going to open the door a crack—just a crack. The minute I do it, I want that vertigo-ray projector to be thrown out here. No funny business, mind you or you'll stay in there and stew in the butterflower fumes. I'll be where you can't reach me with the ray. You understand?"

"We understand," came a quavering response, and Sarah motioned with the hoe for Sam to move out of possible line of ray action. Then she slowly drew the lower half of the door open for the width of three fingers. At once the ray projector came flying out. A kick of Sarah's foot sent it flying toward the butterflower patch.

"Now they're helpless, Sarah," exulted Sam.

She ignored him, leaning forward to peer in through the crack of the door. "Now, then," she continued, "come out—one at a time. And come crawling on all fours. Understand?"

"We understand," came the abject agreement once again, and there was a hurried conference inside, in Gulper

language. Sam Tugg, holding Johnell by one hand, moved closer. Sarah dragged out the lower half of the door.

"All right," she called through the open space. "Come out, you first Gulper."

Almost at once there could be seen a huff-and-purple figure, obediently crawling on its hands and knees. Its malformed head came out first, then its arms and shoulders—no more. Sarah let the hoe fall, like an axe on a chopping block. The Gulper collapsed as though its entire substand turned to jelly.

"Gosh, Sarah!" protested Tugg. The pistols wavered in his hands as though a vertigo-ray had touched him.

"You keep still," she threw over her shoulder. Then, stooping to shout at the two remaining Gulpers. "That had to be done, you understand? Three of you was too many. Now there are only two—my husband I can handle you if you get funny. So don't be afraid. Come out, next Gulper."

There was a moment of hesitancy this time; but Sarah shouted "Come!" and struck another commanding blow on the wall. That, or the sudden loud boiling of the pot inside, drove the imprisoned Gulpers to obey. A second crouching form became visible, its wretched huff head howed, its skinny fingers groping for the threshold. It crept almost out, then paused, as if in horror at its comrade lying there dead under its eyes. That pause marked its finish. Sarah's hoe fell again, heavily and accurately. The two spotted bodies lay jumbled together, suddenly pathetic to see, like dead frogs.

"Gosh, Sarah!" spluttered Tugg once more. "You didn't have to kill that one, too."

"Yes, I did," she snapped, without taking her eyes from the opening.

A gulping wail resounded from with-

in. "I stay in here," quavered the last survivor. "Won't come out—"

"You don't have to," Sarah informed the creature. "I'm coming in."

With a sweep of her weapon she thrust up the hook and dragged away the upper panel of the door. She stepped inside with a certain deadly grace to her stride, her heightened shoulders and poised hands.

Tugg had caught up Johnell and held the little round face against his own chest, hoping to shut away a sight that might mean nightmare memories in years to come; but his own eyes could not leave the scene, so plain to view through the open door.

For the first time, Sarah's stroke was not immediately fatal. Her victim dodged it and tried to get away. The second blow felled him, but he still tried to crawl to safety. Sarah's shabby shoe drove into the flat of his back, held him down like a worm, and this time her edge came solidly home. The last of the Gulpers was dead.

SARAH threw the hoe from the door, and the dark blood flasbed momentarily bright in the glow from the two suns. She took her foot from the flaccid back of her last-killed enemy, and turned to the stove. Skilfully she lifted the boiling pot, drew away the lid, and bent her ruddy face to peer in.

"Another half minute, and it would have been burned to a cinder," she remarked acidly.

Tugg dared to come close. "That doesn't smell very much like butterflower," he ventured.

"It isn't butterflower. It's beef stew. I just said butterflower for the benefit of the Gulpers—the fool things don't have enough sense of smell to know the dif—"

"You did all that on purpose?" her husband howled.

Sarah set the pot on her battered work table and emerged, skirting the tumbled bodies to approach Tugg. Her face was softened by a faint smile that brought warmth to her blue eyes and smoothed away the anger lines at brow and lip-corner.

"I watched everything from the beginning," she explained. "I figured, quick, how to get three of them in here, then how to finish them one at a time. Pretty good for a woman, huh?"

Tugg nodded mute agreement, and she went on:

"Maybe I've been hard to get along with, Sam—cross and all that—but you'll admit that life here is kind of boresome. We need a little excitement like this, to keep from taking root like your butterflowers." Her eyes were dancing. "I'll write a letter home to Maamma, for the patrol to take along, and say we'll be home in five years, rich as kings."

"Yes," said Tugg, "and send Johnell to school, and have a swell house in the country, with servants."

"I wish we had servants now," she muttered. Her eyes turned back to the kitchen door, and at once they turned as hard as silver coins.

"This place is a mess!" she scolded. "Quit coddling that child, Sam Tugg, and help me clean things up!"

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RIDDLES OF SCIENCE

What is Energy?

SCIENCE TODAY DIFFERENTIATES BETWEEN TWO KINDS OF ENERGY -- POTENTIAL ENERGY AND KINETIC ENERGY. ONE HAS TO DO WITH ELECTRONICS AND THE OTHER WITH MASS IN MOTION. WHY THEY SHOULD BE DIFFERENT, NO ONE KNOWS --



PPOTENTIAL ENERGY IS THAT FORM WHICH IS AVAILABLE FOR FUTURE USE, SUCH AS IN STORAGE BATTERIES, SUSPENDED WEIGHTS, ETC.



KKINETIC ENERGY IS THAT FORM WHICH IS BEING EXPENDED IN SETTING A BODY IN MOTION, AND WHICH THEN TRAVELS WITH THE BODY. THE ENERGY FROM AN ENGINE IS KINETIC, AND ONCE CREATED, AS MOTION, IT REMAINS IN EXISTENCE.



The KINETIC ENERGY TRAVELING WITH A MOVING OBJECT IS WHAT CAUSES DISASTER WHEN THAT OBJECT'S PROGRESS IS SUDDENLY HALTED. IT IS ABRUPTLY RELEASED AS EXPLOSIVE ENERGY, HEAT, AND BROKEN DOWN INTO INDIVIDUAL PROPORTIONS, DISTRIBUTED AMONG SHATTERED PIECES UNTIL EXPENDED.



A FIGHTER USES BOTH TYPES OF ENERGY. HIS MUSCLES STORE UP POTENTIAL ENERGY, AND THE SAME MUSCLES TRANSFER THIS TO KINETIC ENERGY, TRANSMITTED THROUGH THE FIST TO HIS OPPONENT, WITH DRASTIC RESULTS.

THE riddle of the nature of energy has long baffled scientists. They know much about it and what it does, and have many theories concerning it. But all are actually hypothetical. It is generally believed that energy is the basic form of all matter, that alactrons, protons, etc., are merely various forms of energy. But just how it is capable of the marvel of transference through motion, they do not know. A bowling ball striking against a line of them in a rack transfers its energy completely through the line until the last one takes up the identical energy and moves on at the same speed.





From the top of the wall came the sharp bark of a gun and Boss Brain fell.

**By Ralph
Milne
FARLEY**

The Hidden Universe

Robert Cathcart enlisted in Frain's army to find his brother, but instead he found a weird universe surrounded by solid rock!

CHAPTER VI

Donna in Danger

Second and concluding installment

See next page for synopsis of first installment

MOST of the plates were blurred, and some disclosed merely a series of dark pillars of various shapes and sizes, but on one plate there were dimly discernible two shadowy human figures, apparently seated on chairs, and distorted as though by being photographed by a camera on the floor.

"Giants," Freundlich announced in calm enough tones, though the pale blue eyes behind his thick lenses were flashing. "Giants about a mile high, so I deduce from the angle at which I took this picture, and from the degree of distortion of the various parts of the giant figures. But my telephoto lens was not set for quite a sufficient distance. We must go again tonight. Meanwhile let us develop our phonograph records."

They spent the rest of the day in coating their wax blanks with graphite,

electroplating a negative film of metal on them, backing these metal films with cement, and then casting positive reproducing records from the moulds.

At supper Emily Freundlich informed them that the capital was seething. Wholesale escapes of roadgang prisoners had occurred, troops were now scouring the colony in search of the fugitives, and a stop had been put temporarily to the shipment of further colonists from the earth. But Dr. Freundlich and Robert Cathcart were too excited by their discovery of the world of the giants, to be affected by her agitation, or even to grasp fully the purport of what she was saying.

That evening they again set forth for the cave, this time carrying merely the camera and a large supply of plates.

As they walked along together, Dr. Freundlich asked, "Do you realize what those photographs prove?"

"That one of the cells of this cock-eyed universe of Malcolm Frain is inhabited by giants? Anything more?"

"Yes. That the air of that cell is normal air, and that our air here is so peculiarly constituted as to be impervious to light within the range of human vision."

"You mean just the opposite, don't you?"

"No, I don't. That picture of the giants was taken on plates sensitive to normal light. I have reason to believe

that our light here is four or five octaves into the ultra-violet."

"But how can we see it then? And why doesn't it kill us?"

"It actually was deadly to the huge silver-fish from the giant world. In my opinion, light killed him. But the status-changing machine which brought us

here has probably changed our physical characteristics in some way so that we can see only ultra-violet rays, and so that those rays are harmless to us."

"But why?"

"As Omar says, 'That is the door to which I found no key.'"

They walked in silence the rest of the way. Arrived at the cave in the wood, they entered it as before.

But only a short distance in, they found the way blocked by a pool of water on the floor,

and beyond that a solid wall of damp rough stone!

"It looks to me," Dr. Freundlich remarked, "as though our giant friends had plastered up this little crack at the base of the wall of their world, so as to keep their little silver-fishes from escaping into our world."

"Considerate of them, I'm sure! Well, what do we do now?"

"Nothing, my young friend, except to return home and think. We have plenty to think about."

THE next morning, long before the time for the customary rising

SYNOPSIS OF FIRST INSTALLMENT

ROBERT CATHCART and Patorina Frain's mysterious colony in a hidden universe. Cathcart wants to find his brother who disappeared into the mysterious "colony". He meets Downs Frain and falls in love with her. Taken in a mysterious "elevator", they arrive at the new world. Cathcart finds a strange difference in time. Weeks seem to have passed in hours. During a riot, he meets Micky Foley and learns of a secret organization. Frain plants some Populist propaganda on Cathcart and he is thrust into a cell. Later he is released to Professor Freundlich and together they set out to discover the secret of this strange world. Cathcart discovers a strange cave, enters, and finds it ends in a mysterious black void filled with strange rumbling sounds. After nearly losing himself, he finds his way out, and later returns with the professor to take photos, and record the sounds on a phonograph. Successful, they return to develop the plates and play the records.

whistle, they were awakened by bugle notes, an unusual occurrence. Troops were marching in the streets. Officers were knocking on the doors, distributing handbills which proclaimed martial law throughout the colony and called all able-bodied men to the colors.

Wrapped up in the official notice was a crudely printed unofficial one which read:

FREEMEN ARISE!

Cast off your shackles and defy Malcolm Frain. He dare not retaliate, for we hold his daughter Donna as a hostage. If enough of us revolt, we can compel the Boss to send us all back to the Earth, where we belong.

Further particulars will be published later. Pass this flier on to a friend.

Down with Boss Frain!

THE POPULISTS.

Cathcart's jaw dropped and his eyes widened as he read it. Donna kidnapped! Undoubtedly by that unprincipled scoundrel, Terro!

Frantically he slipped into some clothes and was about to rush to Headquarters with the handbill, when Dr. Freundlich stopped him with, "You go to the barracks and report for duty, or you'll get into trouble. Let me take this flier to the authorities."

At the barracks Cathcart found a milling throng of excited civilians, being issued uniforms and equipment. Everything was in confusion, officers shouting orders, and no one paying very much attention.

Someone thrust another handbill at Cathcart: an appeal to the soldiery to kill their officers and join the revolution. He hastened to an Inspector and handed over the paper. He had been bit once before by being caught with Popu-

list literature in his possession, and didn't intend to be caught that way again.

Even this time he was immediately taken into custody and held for questioning. The whole Administration seemed to be in a panic.

Cathcart easily convinced his inquisitors that he knew nothing of the source of the circular. And furthermore he made a valuable contribution to the situation; for, when they had finished interrogating him, he in turn asked a question, "Has anyone seen Sergeant Terro?"

No, no one had. So Cathcart told them all that he knew of the man: of his treasonable utterances on Earth the day of their departure for this colony; of the fact that it had been Terro who had slipped him the Populist literature which had been found in his pocket the day of his arrival; and of Terro's several subversive statements to him since. But Cathcart still obeyed Donna Frain's orders to keep quiet about the giant insect in the wood.

"Why did you not report Terro's treason at once to the authorities?" the Inspector asked him.

Cathcart shrugged his broad shoulders. "Who would have believed me? Terro stood high with the Administration. He was personal bodyguard to Donna—I mean, to Inspector Frain. Why should I stick my neck out. But I did continue to spy upon him, whenever I was off duty. Dr. Freundlich will—"

He was about to say that Freundlich would confirm his story about asking time off to spy upon Putorius Terro; but suddenly he realized that this would implicate Dr. Freundlich. So he finished lamely, "He will confirm that I have asked for a lot of time off recently."

The investigators were too perturbed to notice his hesitation. The Inspector

in charge merely snapped, "This not reporting will go against your record, Cathcart. But you have really given us a valuable lead. Besides we need every available man. So for the present you will not be arrested. Go join your squad."

CATHCART saluted and withdrew. He was loaded onto a truck with some other soldiers, and driven off across the plains.

Gradually order was made out of all the chaos, and a systematic plan was evolved. Cordons of soldiers, within fingertip distance of each other, swept through the entire colony. Every house and thicket was searched. Every citizen was bundled in to the nearest Registry, was checked against his card-record there, and was ordered under penalty of death not to leave a certain circumscribed area.

For about a week this kept on, until every square foot of the 1500 square miles of the colony had been scoured. More than a thousand men and their families were reported missing, and not a trace of them nor of Donna Frain and Putorius Terro could be found.

It was inexplicable! As many people as that just couldn't possibly vanish into thin air, especially in a completely hermetically sealed world such as this colony of Malcolm Frain's.

Of course the cave of the silver beast was discovered during the search. Or rather, it was discovered as the result of information obtained from one of the guards whom Terro and Donna had posted around the wood that day. This man reported the episode to the authorities as soon as the inquiries about Terro began. A guard was again posted, and the wood was scoured by specially selected Regular Army troops, with the result that when the ordinary searchers reached the place,

the mouth of the cave had been sealed up and was passed almost unnoticed.

At the end of a fruitless week, the militia were dismissed and told to return to their homes. Cathcart trudged wearily back to the house of the Freundlichs, thoroughly discouraged. What could have become of the flaming Donna? The diabolical cleverness of his rival, Terro, intrigued and maddened him.

But there was one consolation: if Donna should ever escape or be rescued from her imprisonment, she certainly would have no further use for her captor. But then a doubt assailed Cathcart. What if Donna had gone willingly, and was a party to all this? But no, she could never be disloyal to her father. Still, women do strange things when infatuated.

DR. FREUNDLICH eagerly greeted him. "My young friend," he exclaimed, "I have made great progress in my experiments to determine the nature of this universe. Come, you must see."

Cathcart slumped into a chair, waved Freundlich away with one hand and let his head fall dejectedly into the other. "Take it away, doctor," he groaned. "I don't care where we are, or what this universe is. All that want to know is what has become of Donna Frain."

"So do we all of us—all who are loyal to the Boss," Dr. Freundlich relied in a kindly voice. "And especially do I sympathize with your own deep personal interest in the subject. But listen, my young friend. Do you not realize that the nature of this universe may have an important bearing on the Fraulein's fate?"

Cathcart raised a haggard face. Then his eyes lit up, and he pulled himself erect. "Okeh, Doc. You win. 'I'll

listen to anything which has the slightest chance of helping to find the girl I love."

"So?" whistled Freundlich. "So you love her, eh? I have thought as much for some time. Come into my study."

There, seated in a comfortable stuffed leather chair, and soothed by a glass of his host's synthetic wine, Cathcart prepared to listen.

"First, my young friend, I have given up all attempt to measure the curvature of this earth, although I do not subscribe to the theory that it is flat. If, as I suspect, its curvature is of the nature of seven one-millionths of an inch to a mile, it cannot be measured without the use of more delicate apparatus than I have available, and the spanning of a distance which would involve too much publicity."

"I thought you said you had discovered *something*, not *nothing*," Cathcart dejectedly interjected.

"Ah, but I have truly discovered something—quite a great deal, in fact. First I have definitely proved that we are not on the earth—as we know it. But this is only one of my experiments. Let us take a hypothesis, and proceed toward its verification or disproof."

"And what is that hypothesis?"

"That you and I, and all the rest of the people of this colony, are only seven hundredths of an inch tall. From Earth's Center is a long long way by that scale. Hence no curvature."

"What!" Cathcart sat suddenly erect. "Why, how utterly absurd!" Are you you feeling all right, Dr. Freundlich?"

"Never felt better in my life." The little man beamed at him from behind his thick glasses.

"But what is the evidence for your theory?"

"I thought you were a scientist, Dr.

Cathcart. A true scientist needs no evidence in support of an hypothesis. Sufficient is it that no evidence conflicts with it. If we are only seven hundredths of an inch tall, this would account for there being no observable curvature of the earth, and for the barometer not leveling off at thirty inches."

"Pretty slim!" Cathcart said.

"Well, it would explain the nature of this room in which we find ourselves."

"You mean your study."

"No, I mean this whole thirty-nine-mile-square colony. Maybe this colony is the two-hundred-foot-square room in Malcolm Frain's warehouse, to which you carted the laboratory-treated silt several months ago. Maybe our coarse soil is that fine silt. Maybe the status-changing machine which brought us here is a size-reducer. Maybe—"

"HOLD on!" Cathcart interrupted.

"If we are only one one-thousandth our natural size, the acceleration of gravity would be 32,160 feet per second per second, instead of only 32.16. Our weight would be unbearable."

"Unbearable nothing! Our mass would be reduced to one billionth of its earth value, and the combined effect of mass and acceleration and reduction in height, would make our weight appear to be one one-thousandth of what it should. Too light, rather than too heavy. And anyway, I've measured g; it's normal."

"I have a theory," Cathcart asserted, warming up to the subject. "Suppose that our time-sense has been changed, too, so that a second of real time seems like thirty-two seconds to us; then, if our height has been reduced to 1/1024 of normal—"

"But why those figures?"

"Because of the thirty-two day month down here. May it not be that each day on earth is a month in this colony. That would account for all the time-discrepancy which we have observed. You've been here five years, while two months have elapsed on earth. Terro left the earth only a few hours ahead of me, and yet arrived here four days ahead."

Dr. Freundlich's pudgy face suddenly lit up. "Thirty-two times, exactly!" he exclaimed. "The Foucault pendulum! It rotates 28 minutes of arc per hour, exactly one thirty-second of what it should!"

Cathcart continued, "And, with time sped up to this extent, light would appear shifted five octaves into infra red. In order for light to seem normal to us, Boss Frain must be flooding this warehouse with ultra-violet light, five octaves above visibility. But ordinary air is impervious to light as ultra as that, and such light would be lethal; so the Boss has probably status-changed the air of this miniature world of his, so as to pass the light; and the change in our own size-status is probably protective in some way. But look what it did to the silver-fish!"

"My experiment with the photographic plates checks with this," said Freundlich. But he was frowning now, and Cathcart could see that something was puzzling or worrying the older scientist.

Just as Cathcart was about to inquire, sounds of cheering outside interrupted him. The two men rushed to the front door, and flung it open. A parade of soldiers was marching past in the brightly lighted street. In their midst rode Boss Frain himself, in the trim black uniform of the Frain Guards, seated regally on a black horse, receiving the plaudits of the multitude. Quite evidently he had visited this world of

his to take personal command of the operations against the Populists, and of the search for his missing daughter.

Somehow the presence of this great man was very comforting and reassuring to Robert Cathcart. He had never seen the Boss before. Bushy browed, keen-eyed, hawk-nosed, and firm jawed, sitting erect upon his charger, Boss Frain radiated energy and confidence. With him in charge, Donna would surely be found. Spontaneously Cathcart let out a cheer, and the god of his destinies turned and smiled in his direction in acknowledgment of the greeting. Then the procession passed on.

AS Cathcart and Freundlich returned to the study, the latter dryly observed, "So you can see, my young friend, from the way in which you yourself reacted just now, the personal magnetism which enabled Malcolm Frain to rise to the dominating position which he occupies. And yet, if our theories are correct, that man Frain has arrogated to himself the right to hold in the hollow of his hand all of us who dwell in this miniature world which he has created. A mere flip of a switch could plunge us in darkness forever. A crack in the walls could let in ordinary air through which we could not see, even by artificial illumination. A larger crack would let in outside light, infra-red and searing to our status-changed sensibilities. Suppose he were to shut off the rain, and deprive us of water. Or leave it on, and flood us out."

Cathcart shuddered. "Let's hope our theories are wrong!" he fervently exclaimed.

"Perhaps they are, for I have just thought of one fact which may upset our entire hypothesis. Muscular strength, all other things being equal, varies with the cross-section of the muscle. With weight reduced one bil-

lionth, and strength reduced only one millionth, a man here should be a thousand times as strong as on earth."

"Let's pass that over for the moment," Cathcart suggested. "Why not measure the velocity of light?"

Freundlich smiled. "You forget relativity. The velocity of light is independent of the observer; it is an absolute quantity."

But Cathcart persisted. "Independent of position or motion of the observer, yes. But not independent of either the size or the time-sense of the observer."

"I believe you have something there," Freundlich mused. "I shall start building a gear-wheel light-interrupter tomorrow."

The next day the detailed combing already given to every square foot of the colony was repeated under the watchful eyes of the Boss in person. The Boss rode everywhere among the searchers, on his black horse, encouraging them, urging them on. But it was no use. Not a single clue did they turn up. And a re-check of the populace developed the fact that several hundred more citizens had disappeared since the first combing.

Toward the end of the week, as Cathcart was patrolling one of the streets of Town 13, he saw Mickey Foley ducking into an alley. Here at last was a clue, which any other member of the Frain's army, not knowing Foley, would have missed. Silently Cathcart raced to the alley mouth. It was a dead-end. Foley was running rapidly toward a fence at the further end.

Whipping out his revolver, Cathcart shouted, "Halt, Mickey, or I'll fire."

But, without pausing or glancing back, Foley vaulted over the fence. Cathcart fired. And suddenly everything went black.

For a moment, Cathcart thought that

something had hit and stunned him; that someone had fired back, simultaneously with his own shot.

But no. There was no numbness, no dizziness. Everything was quite all right, except that he could not see. He groped to the side of a building and leaned against it. Far down the street in the jet darkness, isolated lights began to twinkle here and there. Then the window of a house across the road lit up, and he could see himself and his surroundings by the diffused radiance which poured out.

A clatter of hoofs, and Malcolm Frain dashed by, alone, unguarded, his eyes wide, his face ashen with fright.

Then the shades were pulled down, and once more Cathcart was in darkness.

At last the street lights came on, street by street. Cathcart ran to the end of the alley, and peered over the fence; no sign of Mickey Foley. So he set out for local Headquarters to report.

But would anything be accomplished by reporting? The Authorities had proved quite impotent thus far. And somehow Cathcart had the same degree of instinctive confidence in the little Irish newspaper reporter, that he had distrust of the swarthy Terro. Perhaps Mickey's presence among the revolutionaries would be a protection to Donna Frain. Cathcart must do nothing to deprive her of that protection. So he turned around and retraced his steps to his beat. And then he suddenly noticed that it was broad daylight again.

WHEN he was relieved of his post, and returned to local Headquarters, Malcolm Frain was there, his poise somewhat recovered, but his eyes furtive and hunted. The others, not having seen what Cathcart had seen, did not appear to notice.

The brief spell of darkness was explained as having been an eclipse. But how could an eclipse occur in a world that has no sun? While Cathcart and Boss Frain were still there, several of the patrols brought in copies of a new Populist manifesto, this time boldly signed by Terro's name, demanding the immediate recall of all troops, under penalty of death to Donna Frain; but promising to spare her life, if the Boss obeyed. And a dated letter, written in Donna's unmistakable handwriting, had been found in a mailbox, declaring that she still lived, but that she was refusing, even under threat of torture, to beg her father to save her.

Foolish bravery! Her letter was just as effective without the plea.

Boss Frain read the flier, and then his daughter's letter, and then the flier again. His grizzled jaw was set and grim, but there was a trace of moisture in his steely eye.

He loved his daughter more than he loved his power. But even in defeat he was firm, decisive.

"Call off the troops!" he commanded. "And announce that I have done so. But announce also that if any harm comes to my daughter, every man, woman and child in this colony will be put to a horrible death."

This concluding threat chilled in Cathcart the sympathetic warmth which he was beginning to feel for Donna's father. And yet would not he himself be willing to deal the same to anyone who injured her?

He returned to Headquarters City not quite as glumly as at the end of the former search. For now he knew that Donna was still alive, and his glimpse of Mickey Foley was strong evidence to him that the whole band of conspirators were still in some quite tangible locality within this cellular world.

But where? Suddenly the solution

dawned on him. A cave! Another cave, like the one from which had come the silver beast. Such a cave could easily house several thousand persons!

Accordingly, he resolved that, as soon as his military outfit was dismissed, he would lay the idea before the Boss in person; it was too good a hunch to waste upon stupid subordinates. Besides, the suggestion might boost his stock with Donna's father. First, however, he would broach his theory to Dr. Freundlich, and ask Freundlich's advice and influence for securing an audience with Malcolm Frain.

But the troops were not dismissed immediately upon their arrival, for first an official circular had to be distributed from house to house, explaining that an "eclipse" was as normal and natural an occurrence here as on earth. So it was late evening when Cathcart, still in uniform, finally reached the house of his patron; but Dr. Freundlich was still up.

THE genial little man waited patiently, though with suppressed excitement, while Cathcart announced his theory as to the hiding-place of the Populists, and recounted the events of the week. Then Freundlich, his pale eyes flashing, sprang his own news.

"I have measured the speed of light. It is thirty-two times what it should be, thus confirming our hypothesis. Even the question of the muscular strength is solved, for I have found in our library an obscure paper by the great Carey of Marquette, in which he expresses doubt that muscular strength varies as the square of its dimensions—in fact, he even hints that it may possibly vary as the cube. This hidden universe of Malcolm Frain's—which is nothing but a warehouse stall—confirms Carey's guess."

"Then it is true that Boss Frain holds

us in the hollow of his hand!" Cathcart exclaimed, bleak horror in his eyes. "We are mere tiny insects crawling in the silt of a warehouse floor!"

Dr. Freundlich nodded solemnly. "And nothing can be done about it. But I have a still greater surprise for you. Come to my laboratory."

At the laboratory, Freundlich put a record on a phonograph, wound up the machine, and placed the needle in the groove. From the sound-box there came a slow, almost musical, deep rumble, rising and falling in uneven waves.

"The noise from behind the black curtain in the cave of the silver beast," Cathcart commented. "But what of it?"

The rotund face of Dr. Freundlich beamed impishly. "And now I will speed it up thirty-two times." He made an adjustment and replayed the record. "Listen!"

Out of the sound-box came the unmistakable voice of Malcolm Frain, saying: "And so, Mr. Secretary, this is my ultimatum to America. You and I and the President are among the few who realize that War is about to break. America is not ready. I alone can make her ready. I have secret means whereby I can speed up the manufacture of munitions and the training of troops thirty-two times the normal rate. Think of it! A month's training for raw recruits in a single day. It may seem impossible to you, Mr. Secretary, but you will have to believe me, for the sake of America. However, I am not patriotic; I am a hard-headed business man; and my price is—" A scraping sound, and the record ended.

"Isn't that perfect?" Freundlich exulted. "Even to the mention of the mystic number, 321

"What interests me more than that," said Cathcart soberly, "is the impending fate of America, and the price which the Boss is to exact to save her."

"I thought," Freundlich maliciously replied, "that it was another 'she,' whom you were anxious to save."

"Donna! How could I have forgotten her even for an instant? I must see her father at once."

But his genial host held up a restraining hand. "Wait!" he said. "Listen to the remaining phonograph records, so that you may know the manner of man with whom you have to deal."

SO the rest of the records were played. They revealed an amazing situation. By piecing together scraps of recorded conversation, the two scientists were able to figure out that "Mr. Secretary" was the Secretary of War of the United States, that he had cast dignity aside and had come to beg the great Industrialist to save America, and that Frain's price for this service was that he be appointed Secretary of State, and that the President and Vice President both resign.

"A man with such lack of patriotism and such a vaulting ambition as that," Freundlich grimly commented, "would stoop to anything, even to the sacrifice of his own daughter."

"I doubt that!" Cathcart defended. "Remember please that Frain withdrew the troops when she was threatened. I was with him at the time, and saw his face—it reflected an inner struggle between love of Donna and love of power. Love of Donna won."

"Well, anyway, this 'colony,' as he calls it, is a mere toy of his. Suppose he tires of it, what? Remember the 'eclipse'? Undoubtedly a mere instant's stoppage of the electric current which lights this miniature world. Man, do you realize that Malcolm Frain, by a mere flip of a switch, could snuff us all out? If anything happens to his daughter that's what he'll do, in revenge. Or suppose some subordinate electrician

blunders for a mere minute of earth time—a half hour of our time down here. Or suppose that something should happen to Boss Frain, and leave persons in charge who don't understand the nature of this cockeyed universe of his!"

Cathcart soberly replied. "My *mind* tells me that you are right, but I can't quite sense it, I can't *realize* that it is so."

"If you ever do realize it, my young friend, remember to hang onto yourself; for it will take a great effort of your will not to go stark raving mad. Remember Malcolm Frain's terror-stricken flight during the 'eclipse'. He realized it then."

The ringing of the telephone interrupted them. It was the maid Minna, all aflutter, to tell them that the Boss was at the house with an armed guard, demanding that they return immediately.

They did so, with considerable trepidation.

MALCOLM FRAIN was pacing up and down the living room in his black uniform with the insignia of a Field Marshal, insignia one grade higher than any American—even George Washington—had ever worn.

"Where have you two been?" he demanded accusingly, as they entered.

"Why—why—," Freundlich stammered, "doing experiments—in the laboratory, Herr Boss."

"Scientific experiments at a time like this?" snapped Frain. "Bah! It was such an attitude that cost Archimedes his life at the fall of Carthage."

"But Carthage is not going to fall this time, Sir," Cathcart cut in.

Malcolm Frain turned deep-set eyes set upon him. "A bold young man," he commented approvingly. "I wish a word alone with you."

Dr. Freundlich interposed, "There is

a garden behind the house, Excellency, with a high wall about it."

"Lead us there, and then leave us," Frain peremptorily commanded.

In the garden, Frain eyed Cathcart searchingly for a moment, by the dim light which filtered in from the glare of the surrounding city. "I am told that you are loyal," he stated.

"I admire your great accomplishments," Cathcart replied. He hesitated. "I—I would not like any harm to come to your daughter."

"And you know something about where Terro has hidden her?" Frain shrewdly surmised. "You alone of all of us have had the insight to see through Terro from the very beginning. Also you have shown an ability to hold your tongue; the episode of the silver-f—the silver beast proves that."

Cathcart decided to make a bold play. "Excellency," he replied, "I know the nature of this hidden universe of yours. I know that it is merely a room two hundred feet square in one of your New Jersey warehouses. I know that all us colonists are at your mercy. I know—"

"What! You know all this, and are still loyal! You know all this, and still have not disclosed it to your fellow colonists! Why?"

"Because the knowledge of it would drive men mad. I saw your face when you were fleeing from the 'eclipse'."

Frain stiffened. "Men have died for seeing less than that!" he rasped. "Remember that you are no longer in a free country, Cathcart. I am autocrat here. Well, go on."

"Your Excellency, realizing all this, I hoped that by serving you with unswerving loyalty, I could finally get close enough to you—"

Frain fell back a step, and his hand went instinctively to his hip.

But Cathcart spread his arms wide to show that he was unarmed, and hur-

riedly continued, "—so as to persuade you to undo all this, and lead us back to the safety of the real world. That is to say, after first using this colony as the means to thwart the threatened invasion of America."

"What!" Frain gasped. "You know of that, too? How? How?"

"I am a scientist," Cathcart replied.

Boss Frain was smiling now, his momentary surprise ended. "Suppose I were to tell you that your scientific theories are absurd and unfounded? Suppose I were to command you to forget them?"

"I should refuse to either believe of obey you."

"Cathcart! You have gone too far!"

"Boss Frain," Cathcart boldly replied, "let's cut out the sparring. You have the power to kill me, if you wish. You can snuff out this whole colony. I know it. But, my God, man, we both want to find Donna. Let's get going!"

Frain tried to keep his face grim, but it broke into an approving smile. "Young man, I like you!" he exclaimed. "Well, what do you suggest?"

"I have a theory as to where the Populists are holding your daughter."

The crack of a pistol resounded through the quiet garden!

"He got me!" cried Frain, collapsing to the ground with a gurgling groan.

Something thudded onto the patch beside them. An automatic! Cathcart scooped it up.

A dark form was scaling the garden wall, silhouetted against the diffused glare of the city. Cathcart leveled the weapon, and squeezed the trigger. But no shot came.

Unloaded! He might have known.

He bent over the fallen Boss. The shouts of approaching guards could be heard within the house.

This, then, was the end. Alone with the Boss. The Boss murdered. And

Cathcart's fingerprints on the butt of the murder weapon!

CHAPTER VI

Flight

THE evidence would be conclusive that Cathcart had killed Boss Frain. And yet his first impulse was not to flee; but rather to stay, in the hope that the father of the girl he loved was not dead.

Yet how unnecessary! The body would be discovered in a few seconds, and Dr. Freundlich and the Boss's retainers would do whatever could be done for the stricken man. So Cathcart thrust the empty pistol into one of his side pockets and scrambled lithely over the garden wall, landing in a dimly lighted alley.

No sign anywhere of the assassin. Cathcart dogtrotted silently to one end of the alley, and peered out. Plenty of people in the street, many of the men being dressed in the black Frain uniform like himself. Cathcart mingled with the throng, and walked slowly along, his mind in a daze.

Gradually his senses cleared, and there came to him a realization of the hopelessness of his predicament. Not his own personal predicament as the putative slayer of the Boss, but rather his predicament in common with all these other poor souls trapped in this hidden universe, which really was merely a room in a New Jersey warehouse. Malcolm Frain himself had admitted as much by his silence in the face of Cathcart's statements.

And, now that Frain was dead, now that his daughter and sole heir was a prisoner of revolutionaries within this same trap, what assurance was there that the elaborate man-made mechanism which supported life within this ar-

tificial world, would continue to function!

Cathcart felt a sudden urge to run, to shriek, to seek the barrier wall and beat his fists upon it. But a recollection of the words of kindly old Freundlich stayed him. What had the rolypoly little scientist said? "If you ever reach a full realization of the nature of this miniature world which Malcolm Frain has created, hang onto yourself; for it will take a great effort of will not to go stark raving mad."

Cathcart squared his shoulders and drew in a deep breath. He could face the realization. And, from now on, his problem transcended saving his own neck from an undeserved charge of murder. It even went beyond rescuing Donna Frain for her own sweet sake. He must rescue her for the more important purpose of enabling her to take over her father's control of the destinies of these thousands of poor human mites crawling microscopically in the fine silt spread upon a warehouse floor.

An official car was drawn up beside the curb. Cathcart thanked his stars that the Frain V-eights of this starless world had no locks, since theft was believed impossible here. In an instant Cathcart was in the car, headed for the outskirts of the city, selecting and traversing a little-traveled route. Still no signs of pursuit.

But when he reached the district line, he understood. Instead of a hue and cry, the authorities had merely blocked the exits. A black and white striped gate was down, and in the middle of the road stood a sentry with automatic pistol held at the alert.

CATHCART drew to a stop, and leaned out of the car window. "Private Robert Jones, on an official errand for the Boss," he announced.

"The Boss is dead," the sentinel

grimly replied.

"My God, no!" Cathcart exclaimed, his eyes widening and his jaw dropping with well-simulated astonishment. "Why, he gave me this dispatch in person not half an hour ago at the house of Professor Freundlich! How did it happen?"

"Assassinated by a guy named Cathcart. Orders are to let no one leave the city."

So the supposed crime was known already? Of course, it would be. Yet somehow the actuality was more staggering than the expectation had been.

Cathcart shuddered. Then pulled himself together. "But, man, this dispatch must go through. The Boss's death makes it all the more important. Look, I'll show you my pass."

He got out of the car, and started fumbling in the pockets of his military blouse. The guard drew nearer, expectantly, and lowered his gun. Instantly out shot Cathcart's fist, straight to the point of the man's jaw. As the fellow crashed to the ground, Cathcart leaped back into the car, stepped on the gas, crashed through the striped gate, and was off down the road toward open country.

But he had won only a slight respite. The guard would soon be found, and then—pursuit!

About five miles out, and five miles short of the next town, he saw the tail lights of another car ahead. As he passed it, he noted that it too was official. Pulling to a stop a short distance beyond it, he drew his car across the narrow road, blocking it, honked several times, got out, and held up his hand, bathed in the headlights of the other car.

It stopped. Its occupant got out and approached him. An Inspector of about his own size and build.

Cathcart saluted. "Sorry to stop

you, Sir, but I'm on special patrol, to inform all Inspectors who haven't been reached by radio or telephone, that the Boss has been murdered and that they are to be on the lookout for his assassin."

The Inspector was eyeing him suspiciously. "My car is equipped with short-wave," he crisply replied. "I know all about it, and am on the same mission myself."

"Then stick 'em up, Sir," gritted Cathcart, reaching in his pocket for his empty gun.

Up slowly into the air went the officer's hands. Cathcart stepped forward as though to search him, but instead clouted him over the head with the barrel of his gun. The man collapsed without a sound to the pavement.

Rapidly Cathcart dragged the inert form into a nearby field, ran his own car off the road, knocking down a fence to make it look like an accident, and switched off the lights. Then he pulled loose some wires, changed blouse and cap and gun with the Inspector, and propped the body up behind the wheel.

AS he continued on his way in the Inspector's car, he commented grimly to himself, "If they discover the car before the Inspector comes to, it'll be a clear case accidentally running off the road. If he comes to, finds he can't start the car, and staggers into some nearby town or farmhouse, no one will believe his story. In either case, he'll be arrested for being me, and in the meantime I have all the necessary papers to identify me as Inspector Talbot. And a short-wave radio, to keep track of the pursuit. What a break!"

His identification papers got him by the next two barriers. But Cathcart began to wonder how long he could succeed with this impersonation. So finally on the outskirts of Town 13,

which he had picked as his destination, he parked the car and reconnoitered.

The open lighted window of a farmhouse attracted his attention. He crept up to it and peered in. It was a bedroom, vacant for the moment. Beyond it he could hear the sounds of a man singing and splashing in a bath tub. On a chair by the window was a suit of clothes.

Cathcart reached in and took the clothes. Hastily slipping into them behind the barn, he threw his uniform into the manure pit, and resumed his car. By the car's dome-light, he inspected the contents of the pockets of the purloined suit, and to his joy found a pass, dated that very day, entitling Thomas Thistle to enter and leave Town 13. So running the Inspector's car into a side road he switched off the headlights removed and hid the distributor, and set out on foot the remaining half mile or so to the town.

His pass got him into town all right. But now what? As he was walking thoughtfully along the almost deserted streets, trying to recall the exact locality where he had seen Mickey Foley, a Corporal in uniform accosted him. "Pretty late to be on the streets, Colonelist. Let's see your pass."

Cathcart pulled it out and handed it over. The soldier tilted it to read it by the light of a nearby street-lamp, then wheeled around with, "You're not Thistle! I know the man. Who are you?"

"Oh, have I Tom's pass by mistake? That is too bad. You see I'm visiting Tom, and—" Out shot his fist, spilling the Corporal into the gutter.

But the blow was ill-aimed. The soldier was up in an instant, his automatic clutched in his hand. "Halt, or I fire!" he cried.

Cathcart fled.

A shot rang out behind him. Another, and another. He dodged down an alley.

But it was the same dead-end alley into which he had formerly chased Mickey Foley, or another one much like it. Over the fence at the end went Cathcart, just as Foley had done that other time. Cathcart groped his way across a yard in the darkness, scaled a fence at the further side, and found himself another alley. The black form of the soldier appeared on the top of the wall, silhouetted dimly against the sky. Cathcart reached into his pocket for the Inspector's gun, and then realized that he had left it in the Inspector's clothes which he had heaved into the manure-pit. So he flattened himself into a dark doorway. The pursuing soldier dropped from the wall, and trotted by.

Cathcart heaved a sigh of relief, lost his balance slightly, and leaned against the door for support. But the door swung open, and he sprawled into a brightly lighted room. He blinked, sprang to his feet, and looked into the muzzle of a revolver.

Behind it was the grinning freckled face of the little Irish tabloid reporter.

"Well, if it isn't the assassin in person!" Foley exclaimed, lowering the gun and closing the door. "You're one of us now, whether you like it or not. Wouldn't this make the front page! But we must be quick about it. This way!"

HE snapped off the lights, and led Cathcart groping through several rooms and down some stairs, then turned on a single dim light. They were in a cellar room with tiled walls. Foley pressed on one of the tiles, and a small section of the wall swung open, disclosing a long low dirt tunnel. Into this they crawled, closing the smoothly hinged

wall-section behind them.

"Well, Cathcart," said Foley, as they crawled along, "how come you killed the Boss?"

"It's a long story, and I think I'd better save it for Mr. Terro."

"Oho! So you know where I'm taking you?"

"Naturally. This is where I was heading for. Lucky thing your door was open."

"Damn careless of me, if you ask me. You might have been a cop. Please don't tell our Leader that you got in without giving the countersign."

"I won't," Cathcart promised, grinning to himself in the dark.

The tunnel ended against a smooth face of hard rock, and turned sharp to the left. Dim light could be seen ahead. As they crawled nearer, this light was disclosed as coming from a narrow crack in the wall to their right.

Through this crack they squeezed, and stood erect in a cavern just like the lair of the silver beast. This then was the hide-out of the Populist revolutionaries; Cathcart had been correct in his guess.

A heavily armed squad of determined-looking men in civilian clothes stopped them just inside the cave, and expressed great surprise and joy when informed as to the identity of the newcomer. "Our Leader will certainly be glad!" they exclaimed.

But Cathcart wondered whether Terro would be glad to see him; and, if glad, glad for what reason and what purpose.

"So long, Bob. Wish you luck with us," said Foley, turning back.

"So long, Mickey. I'll give you the story exclusive for your paper some day, if we ever get out of here."

Then one of the guard led Cathcart away, down the cavern.

This crack in the barrier-wall was

larger than had been the cave which he and Dr. Freundlich has explored. Along one side stood rude houses of rough board. Additional houses were in the process of construction. Water-pipes and a sewer-main lay along the floor of the cavern, and the whole place was well lighted. Fortunately for the conspirators, neither water nor electricity were metered in the Frain colony, and so the diversion would never be noticed; or, if noticed, could not be traced to here.

Finally Cathcart reached a house more pretentious than the others, and was led inside. A crude printing-press was working. There were file-cabinets along the wall, and a number of clerks at desks. Two soldiers, incongruously clad in the Frain uniform, although at war with Frain, stood one on each side of a closed door. One of them stepped inside, reported, and then ushered Cathcart in.

At a desk facing the entrance, sat Putorious Terro, swarthy, oily, and self-assured. He, too, wore the black uniform of the government against which he was rebelling, and on each shoulder were the five stars of a Field Marshal.

CATHCART'S grey eyes narrowed, and he was about to remark that his former truck-driver associate had certainly come up in the world; but he restrained himself and saluted.

"Well, Cathcart," said Terro, his closely set eyes boring into the man who stood in front of him, "we meet again. So you have at last taken my advice to join our cause? But perhaps you have come too late."

"I hope not," Cathcart replied, grinning quizzically.

Terro evidently misinterpreted the grin as an attempt to be ingratiating, and the remark as an expression of

hope that the lateness of Cathcart's eleventh hour conversion would not be held against him. "What have you got to prove that you are on the up and up with us? The killing of the Boss?"

"No," said Cathcart, his grey eyes narrowing. "But rather a frank admission that I am entitled to no credit whatever for his death."

Terro raised his bushy black eyebrows. "Your frankness panics me. Who did bump off the Boss?"

"I thought you knew."

"Oh! Then your frankness don't panic me one bit. I sent several guys to do the dirty work, but they ain't any of them reported yet, so I was afraid that you'd beaten them to it. Frain really is croaked?"

"I was alone with him when he died, Sir. That's why I'm getting both the credit and the blame for it."

"Wish I could be sure you're not stringing me. Maybe the whole yarn is a frame-up. You got here too damned easy for a feller who's on the lam. How did you find our hang-out?"

"I just happened to—" But no, he must not betray Mickey Foley's carelessness in leaving that door unlocked. "I just happened to be running away from a soldier. I ducked into an alley and banged on a door. Must have given the secret number of raps by accident, for one of your men let me in. But he took good care to keep me covered until he recognized me as the supposed assassin. Then he brought me here. That's all."

Terro waved a lordly hand to the guard. "Take him away and throw him in the jug, until we get a line on his line."

BUT Cathcart interposed. "Just a moment, your Excellency. May I have a word in private with you first?"

"Frisk him!" Terro commanded. The guard found nothing. "All right, guard, scram. Well, Cathcart, what's on your mind?"

"A plenty, Sir. Do you realize that a man who has proved himself clever enough to locate your hide-out—"

"Then your line about how you got in here ain't on the level?" Terro snapped, glowering at him.

"It's perfectly on the level. But I had already traced you to Town 13, and had figured out that you must be in a cave in the barrier wall. So I'd have found you sooner or later. But, as I was saying, don't you realize that a man as clever as that, would have been able to figure out Malcolm Frain long ago. Do you realize what and where this so-called 'colony' is?"

"Now don't spring any fourth dimension stuff on me, feller. It's just a hole in the ground, which takes twenty minutes to reach by elevator from the Frain warehouse."

"It's no such thing!" If Cathcart could but get this hulking opportunist to realize the truth, he might succeed in scaring him into negotiating with the authorities. "That 'elevator' really is a status-changing machine—it has shrunk us all to a height of less than a tenth of an inch. This forty-mile-square colony is merely a two-hundred-foot room in the Frain warehouse. I was a scientist in the outside world, Terro, before I got down-and-out and took a truck-driving job with Frain. You yourself know that they assigned me to the laboratories of the great Herr Doktor Freundlich here. Since my arrival in this colony I have spent all my spare time with scientific tests to discover the nature of this hidden world; and, believe me, I've discovered it!"

"Baloney!" sneered Terro, but there was masked fear in his narrow-set eyes. He rang for the guard. "Take him

away, and lock him up."

As Cathcart was led out through the room of the printing press, his eyes caught the wording of the flier that was being run off. He snatched up a copy, and read it:

**COMRADES ATTENTION!
BOSS FRAIN IS DEAD!**

His sole heir is his daughter, Inspector Donna Frain. She had joined our cause. She is not the heartless capitalist that her father was. And she has consented to marry your Leader. By the time that this reaches you, the wedding will have been performed.

This is my last warning. Pass the word along to all those who still support the old regime, that the old regime has crumbled, and that Donna Frain herself will deal harshly with those who do not immediately join the Populist movement.

She and I jointly promise liberty and justice for all, and a free return to the earth for those who wish it.

PUTORIUS TERRO.

Cathcart's hands clenched. His Donna married to that brute! Did she love Terro? Could she possibly love Terro? Cathcart writhed with an agony of jealousy. And yet was not the outcome of all this the exact result for which he himself was aiming, namely the evacuation of this tiny world before someone slipped at the control levers and snuffed them all out.

He paused irresolute, his personal feelings warring with his duty. The guard gave him a shove.

And then suddenly Cathcart's keen mind saw the flaw in the whole set-up. Donna undoubtedly knew the secret of this hidden universe, and evidently had

not told Terro. Hence she was an unwilling bride. Putorius Terro would prove a worse tyrant than even Malcolm Frain; and would stop at nothing, even the death of the flaming Donna—after marrying her and thus making himself her heir. He would drive a harsher bargain with the United States Government than even Frain had been prepared to do. It must be stopped.

With a wrench, Cathcart pulled away from the guard and dashed back into the office-room.

"By God, you shan't do this!" he shouted, making a leap across the desk at the startled Terro.

The roar of a pistol shot sounded behind him, and he crumpled senseless before he reached his intended victim.

CHAPTER VII

Abject Terror

CATHCART found himself lying in darkness on a hard rough rocky floor. Through the cracks in the board walls which surrounded him he could see dim light.

He sat up unsteadily. His head ached terrifically. He raised his hand to it, and found that a wet sticky bandage was wrapped around it.

He staggered to his feet, and groped along the walls of his prison. Found a door, and rattled it. A man came, and opened a peek-hole, and peered in.

"Hello," said Cathcart.

"Uh-huh," the guard grunted.

"How long have I been out?"

"About two hours."

"When does the Leader get married?"

"None of your business."

Cathcart grinned to himself. So the wedding had not yet taken place?

"Don't you think that this is a rather scurvy treatment to give to the man who killed Boss Frain?"

"I ain't saying nothing."

"But you're willing to listen, if I give you some information which may be of value to you? It's vital to the Populist cause, but I couldn't get our Leader to listen to it."

"Uh-huh."

"You look like a decent sort of a guy. Get me a glass of water, and I'll give you an earful."

"Okeh, buddy. But I ain't saying nothing."

The peek-hole closed. Presently it opened again and a glass of water was handed through. Cathcart drained it. He felt immeasurably better and stronger. Now to sow panic amid the forces of the enemy.

"Listen closely, and don't breathe a word to a soul." With this introduction, Cathcart plunged into an account of his scientific theories as to the nature of the hidden universe.

But the man interrupted him with a snort of, "Looney! Looney as a hat! No wonder our Leader wouldn't listen to you." And slammed shut the opening.

As Cathcart slumped disconsolately to the ground again, he tried to make himself believe that the seed of fear which he had planted in the brain of this dull-witted fellow might sprout and spread, before too late.

A couple of hours later the peek-hole opened again.

"Hello!" said a familiar voice.

"Mickey!" Cathcart exclaimed.

"Sh! Careful! I'm on guard here now for one shift. Mustn't fraternize with the prisoners, you know."

"Listen, Mickey. I rather figure that our great Leader won't permit me to live very long, and so I'm going to make good my promise to give you the low-down on the death of Boss Frain. For your tabloid, when you get out of here. It ought to be a scoop."

"That's decent of you. Shoot."

"Remember your tipping me off once to the fact that this is a flat world? No curvature?"

"Yeah. But what has that to do with your killing the Boss? Me, I wouldn't murder a man just because the earth is flat. But then you Harvard fellows are peculiar."

"Mickey, this is no laughing matter. Listen. I'll give you the scientific scoop of the age, and in as popular language as I'm capable of. Then it'll be up to you to play the Garrett P. Serviss with it for the press."

"Shoot."

THIS time Cathcart got the idea completely across. And the news value of the story so completely transcended all other considerations in the little reporter's mind, that he forgot to be frightened at it.

"Ain't we got fun!" Foley exclaimed when Cathcart finished. "I can just see the front-page lead: 'FRAIN'S SECRET WORLD EXPOSED. The Man Who Would be God! Talk about your Millionaire Man of Mystery! The mystery is solved!'"

"Yes, but Mickey," Cathcart soberly reminded him, "how are you going to get your story to your paper?"

"The revolution is about to triumph, and then we'll all be free," the reporter airily replied.

"I wonder. What if someone were to turn off the current in the meantime? There's no one running things, you know, with Frain dead and his daughter vanished. We're only a lot of little fruit-flies; we'd never be missed."

"Gosh, I hadn't thought of that!"

"Mickey, how would you handle that story if you wanted to get it across to a lot of fruit-flies, instead of to the readers of the New York Daily Tabloid?"

"How—would—? I getcha. I'd cut the part about the size-change. That's too goofy. I'd cover merely the fact that our light and air is fed into here artificially, and that if a powerline happened to break, or if the man at the controls happened to fall asleep or quit his job—blooie! And with Frain dead, that's what's just as like as not to happen, unless his daughter takes charge pronto. She's probably the only person who understands the ropes, outside of him."

"Good boy, Mickey," Cathcart breathed. Now Mickey would be sure to take care of Donna!

"But look-a-here, pal. How come, knowing all this, you killed the Boss?"

"I didn't." Cathcart then related what had actually taken place in the garden, including Malcolm Frain's tacit admission, just before the firing of the fatal shot, that Cathcart's theories of the nature of this hidden universe were correct.

"But then why does Terro give you the credit?"

"The blame, you mean. I figure he wants to queer me with Donna."

"Oho!" Foley whistled. "So that's the way the land lies. Well, I don't know. Perhaps the quickest way to get us out of here would be to let the marriage go through."

Then Cathcart played his trump card: the conversation of the giants, which his phonograph had recorded.

"The dirty louse!" Foley exclaimed. "So Boss Frain cared more for power than for saving his country. He deserved to get shot! And what a story this war will make. Gosh, I've got to get out! Change of guard coming."

He slammed the cover of the peek-hole shut.

Cathcart sat down again on the hard floor, well content to believe that he had at last succeeded in planting a virus

of fear, which would serve for the eventual undoing of Putorius Terro, and the rescuing of Donna Frain.

And then he realized that he had omitted to ask Mickey Foley when the wedding had been set for. Nor would the new guard tell him.

But the succeeding guard, although he too would not tell Cathcart anything about the wedding or other plans of Leader Terro, did ask Cathcart with much trepidation about the danger of a cut-off of light and air from the colony; and Cathcart, taking care now to keep away from the question of size, gave the man plenty more fearsome details to increase his worry. And added the suggestion that a failure to shut off the regular night rain would drown them all like rats in a trap. Truly Mickey Foley's news-story was spreading!

Each successive guard seemed more terrified, and more eager to interview the prisoner. But none would tell him anything about the wedding. Was it too late to save Donna from this unwelcome marriage?

Finally word came that the Leader wanted to see him, and he was taken—this time strongly shackled—out of the prison, down the cavern, and into Headquarters once more, into the presence of Putorius Terro.

This time Terro was taking no chances—behind his chair stood a row of determined looking men, revolvers held alertly ready.

THE Populist Leader's tufted eyebrows contracted in a frown above his narrow-set beady eyes. "Cathcart," he snapped, "you ain't going to bother me much longer. But first I thought you'd like to see the wedding. It's going to be pulled off at once."

"Does Miss Frain really want to marry you?" Cathcart blurted out.

Terro opened his slit mouth, disclos-

ing two rows of bad teeth, and laughed. "She didn't, once," he admitted, still laughing.

"What do you mean?"

"That is, not until I told her what was to be my wedding present to her. When she heard that, she flung her arms around my neck."

Cathcart grimaced at the thought.

Terro continued, "I'm going to give her the death of the man who humped off her dad. She's going to pot you herself at the wedding!"

And the guards dragged Cathcart out again, to the accompaniment of Terro's croaking laughter.

This time Cathcart was led to a part of the cavern which opened out into a huge vaulted hall. At one side jutted a ledge of rock which formed a natural stage. At the edge of this stage stood a rough wooden altar, and at one side of the stage a four-by-four beam some ten feet high was planted upright in a crack in the rocky floor. To this beam Cathcart was firmly bound with ropes, a dirty disheveled figure with two days' growth of beard. One man hit him roughly on the face.

The wooden benches of the amphitheater were beginning to fill with people, who stared curiously up at him, and whispered. Had Mickey's propaganda spread sufficiently, he wondered, so that he could hope to sway this audience with an appeal to save Donna Frain and themselves?

As if in answer to his speculations, one of the guards came and stuffed a handkerchief in his mouth, and tied another across his jaws to hold the first in place. Terro was taking no chances of a farewell address by his victim.

A trumpet blared, and the whole audience arose, as their Leader, clad in his Field Marshal uniform, entered from one side with a priest. So this rabble had their Friar Tuck too?

Then a military band struck up the wedding march, and Donna Frain, clad in white, and leaning on the arm of an elderly man whom Cathcart did not know, came down the aisle, followed by six of the women. Her face was set and colorless.

Cathcart tried appealingly to catch her eye. She flashed him one contemptuous glance, held her head a trifle higher, turned toward Terro and smiled. Terro smiled back possessively, and then grinned up at Cathcart.

The procession halted and the music stopped. The priest signed to the bridegroom to step forward and claim the bride. But instead, Terro held up his hand and leaped to the platform.

"Comrades!" he shouted. "Boss Frain is dead." The crowd let out a cheer, and Donna shuddered. Terro continued, "But now we are going to make peace with the Frains, with us on top. All of youse who have stuck by me are going to have fat jobs in the Frain Industries. The price of this peace is that the lady here is going to bump off the guy who killed her old man. Here, dear, take this."

HE stepped to the edge of the stone platform, pulled the automatic out of its holster at his waist, and handed it down, butt foremost, to Donna Frain. Cathcart strained at his bonds, and strove to spit the gag out of his mouth.

An angry murmur arose from the crowd, interspersed with, "No! No! He killed our enemy. He's one of us. Let him live."

"Silence!" Terro shouted.

"He did *not* kill Boss Frain," came a cracked voice from the crowd. "I did!"

All eyes turned in that direction. A tall gaunt long-haired man stood up. "Leader Terro," he cried. "You shan't take the credit away from me. You assigned me the task of wiping out our

oppressor. I did it, and now you give credit to another. Down with *all* Frains, I say."

He snatched out a revolver and leveled it at Donna.

The roar of a shot! But it was from the platform, not from the tall man in the crowd. On the edge of the platform stood Mickey Foley, smoking gun in hand. The tall man crumpled.

"Is this true, Sergeant?" Donna called up to Field Marshal Terro, and there was a sting in the word "Sergeant." She swung her gun around toward Terro, but a nearby guard snatched it from her hand.

"You bet your boots it's true!" shouted Mickey Foley, digging his gun into Terro's ribs. "Cathcart is innocent. Tell 'em it's true, 'Sergeant!'"

"Of course, it's *not* true," their Leader suavely replied. "This dead man was insane. Cathcart *claims* to have killed the Boss. If Cathcart lies, then he is a traitor and a spy."

Cathcart tried to shout to Mickey to shoot and shoot quick. Terro was playing for time. One man alone could not hope to hold this crowd at bay for many minutes. But not a sound came through Cathcart's gag. He strained at his ropes, and thought he felt the pole to which he was tied tilt a little.

A breathless pause ensued, to be broken by a man rushing into the hall, frantically shouting, "It's happened! The light and air are shut off! And it's raining! We'll all be drowned!"

Terro took advantage of the confusion to wheel and grab the gun out of Foley's hand. "It's a lie!" he shouted.

Cathcart gave a heave, and the foot of the stake lifted out of the crack in the rocky floor. He leaned far forward, and crashed to the ground, striking Terro squarely with the top of the pole, and felling him.

The whole auditorium was in an up-

roar. Foley rushed over to Cathcart, cut his bounds, and yanked off his gag. Then picked up his fallen weapon and pumped several shots into the sprawled body of Putorius Terro. "Let's get out of here, pal," he shouted.

"If the end of the world has come, what's the use?" Cathcart asked, staring around for Donna, who had been swallowed up in the crowd.

"Nuts!" Foley snapped. "I planted the man to say that."

"But we must save Donna."

"Nuts again! There's only one way out of this cave—the dirt tunnel. I know a short cut to reach it. Donna'll be in the crowd all right. The thing to do is to get to the tunnel ahead of the mob, and preserve order. Come on!"

CATHCART grabbed a gun out of the hand of a bewildered guard, and followed Foley into a narrow slit in the wall, through which they groped for quite a way in the darkness, finally emerging into the main cavern again into a seething crowd surging toward the exit.

The exit was hopelessly jammed. No one would ever get out of here unless order could be restored.

Into the jam waded Cathcart and Foley, clubbing right and left with their pistol butts. They reached the tunnel mouth, but were swept aside by the milling throng. They shouted, but could not make themselves heard.

Then Cathcart fired his weapon at the ceiling. Splinters of rock fell, and the echoing sound of the shot reverberated through the cavern. The noise halted the crowd momentarily, and they surged back in unison away from this new menace.

"Listen to me," Cathcart commanded. "We're armed, and we'll shoot to kill!"

The crowd began to quiet down. But, scanning their heads, Cathcart saw a gun leveled at him. He promptly potted the fellow.

"Now will you listen?" he bellowed. "Fall back there, all of you, or I'll shoot

again. Anyone with guns, please come forward and help." Several men elbowed their way out and took their places beside him. "Good!" Then, to his new helpers, "Now you force the crowd back, and line them up in single file. Shoot anyone who leaves the line, and shoot to kill."

Speedily, the line was formed. Foley, at the tunnel mouth, let

them through one at a time.

"Anyone seen Donna Frain?" Cathcart shouted.

A shout came, "She's here."

"Let her come forward!"

An angry grumble arose. "Why should she get out ahead of us?"

"Why should she get out ahead of us?" Cathcart repeated. "Because the sooner she reaches the controls, the sooner we'll all be safe. She's the only person who knows how to stop the rain,



A guard struck him roughly.

and turn the light and air on again."

"Let her out! Let her out!" cried the fickle crowd; and Donna Frain, in a much torn and bedraggled wedding gown, was passed forward.

She raised eyes full of gratitude to her rescuer. "Forgive me for having doubted you," she begged. "I've been a beast."

Cathcart's heart went out to her. But he had responsibilities to these people. "Donna," he said sadly, "I hate to have to suspect you. But before I let you out of here, you've got to make me a promise."

"Such impudence!" She bristled.

"No promise, no get out."

"Well, what is it?"

"That your troops will not interfere with my evacuating this cave, once you are on the outside and in command again."

She nodded.

"On your word of honor."

"On my word of honor."

"Okeh, Mickey, let her through. Goodby, Donna, I'll be seeing you." And he turned his attention back toward supervising the line; as, head held high, the girl swept by him.

FINALLY the last person in the line was through. The men who had helped Cathcart hesitated. "All right for us to go now, boss?" one of them inquired.

"We ought to search the cave for the injured," Cathcart asserted. "A lot must have been trampled on."

"Nuts!" cried Mickey Foley. "Hell's probably a-popping outside; and the sooner we get out, the better. If the Town 13 hospital is still in operation, we can send some stretcher-bearers in here after the wounded. If not, then the wounded might as well die in as out. I read in a medical column once that no one but a doctor ought ever try to move

an injured person."

They all crawled out of the cavern, and out of the house in which the tunnel ended.

It was day outside, broad daylight. Neither the air-supply nor the bright diffused light above the clouds had been turned off, nor was it raining. They found the doctors, nurses and internes of the local hospital sticking to their posts, though every other member of the community, both lay and official, was streaking toward the Headquarters City in a wild panic.

Hurriedly they told the hospital staff about the injured in the cave.

Then said Cathcart, "We've got to head off this stampede somehow."

"What's the matter with leaving that to the authorities?" Foley objected. "You seem to think you're some sort of a superman!"

Cathcart grimaced. "I made this gang of Communists listen to me once, didn't I? They'll recognize me and do it again."

"But how'll you get ahead of them? Every auto in this town has been stolen."

"I've a car that they won't have taken, down the road a ways. Come on."

So the two of them set off at a dog trot out of town. Cathcart found the car still standing where he had left it. It was a simple matter to replace the distributor-head.

Then he drove away from the main highway, and took a less direct route which was not choked with refugees. And he forced the car to its utmost.

"I ought to get to a telegraph station, and send in an account of all this," Foley lamented. "Ob, boy, what a story!"

It was the only remark by either of them, as they roared along.

When they reached Headquarters

City, Cathcart slowed down and glanced at his wrist-watch. "Five forty-five," he announced. "Nightfall in fifteen minutes. And then what?"

THERE were no guards at the usual posts on the outskirts. All the streets were deserted, except for refugees straggling in. Abandoned automobiles blocked the streets. Leaving their car, Cathcart and Foley got out and made their way on foot toward the Administration Building. It too was empty.

They turned toward the building which housed the "status-changing machine" against the face of the barrier wall. Cathcart glanced at his watch again. Six fifteen, but still daylight!

"Someone is asleep at the switch-board," was his tight-lipped comment.

Foley chuckled. "I've got a better explanation than that. Miss Frain has phoned them to leave the lights on. That's one advantage of a 'controlled economy.'"

Here the streets were pack-jammed with a surging mob, as uncontrolled and panic-stricken as the one back in the Cavern of the Populists had been.

Cathcart and Foley recognized a number of their former comrades; and they, recognizing their saviours, let them through. It was as Cathcart had said. If anyone could quell this riot, it was she.

Finally he and Foley edged their way to an open space. In spite of pushing from behind, the front lines of the crowd were holding back in evident terror of something more fearsome ahead.

Ringed about the face of the building was a semi-circle of soldiers, armed with machine-guns, rifles, and hand-grenades. And behind them on the steps of a doorway stood Donna Frain (in trim black uniform again), Professor Freundlich, and a small group of

grim looking Inspectors.

"We're not afraid of their guns!" shouted someone in the mob. "Come on! We'll die here anyway, when they turn off the light and the air."

CHAPTER VIII

The Death Ray

THE mob began to edge slowly forward.

Donna Frain took a microphone in her slim hand, and her clear calm voice sounded over a loud-speaker high up on the face of the building: "Colonists! Look what time it is. Nearly half past six, and the daylight is not yet off. Is not this evidence enough of my good faith?"

"What did I tell you!" Foley whispered to Cathcart.

Donna continued: "You are all perfectly safe; but the one small status-changing machine is the only exit from this world. If you try to rush it, many will be killed by my guards. And, even if you finally overpower my guards and reach the machine, you'll jam the machine and wreck it, and then none of us will ever get out of here alive."

"Let us out!" a frantic voice shrieked somewhere in the crowd. The cry was taken up and echoed, drowning Donna's words. "Let us out! Let us out! Let us out!"

Cathcart jumped in front of the crowd and held up his hand.

"It's he! It's he! It's he!" cried scattered voices. The hubbub quieted somewhat.

"How many of you are Populists?" he shouted.

There was no answer.

"Don't be afraid to speak up!" he called. "I'm your leader. I got you out of the cave, didn't I? Well, I'll let you out of here, too. All who were in

the cave, hold up your hands." A few hands shot up. "Come on! All of you!" More hands.

Then toward the group on the steps, Cathcart called. "And I got you out of the cave too, young lady; don't forget that."

An angry rumble arose in the crowd, interspersed with some laughter.

"Hands again!" Cathcart shouted. This time quite a number showed. "You who are bolding up your hands—you at least are Populists. Why aren't we all Populists? For it is only by sticking together that we can win our freedom."

"Shall I shoot him down?" asked one of the machine-gunners grimly.

But Donna hurriedly shook her head. "No. Let him speak. I myself will deal with him later."

"Everyone hold up your hands!" Cathcart commanded. The crowd obeyed, almost to a man. "There! Now we are all Populists! Are you with me?"

"Yea!" howled the crowd.

Mickey Foley snorted contemptuously, "Now give three rousing cheers for old Alma Mater."

But, ignoring this sally, Cathcart turned back toward Donna and her group. "What have you to say to that, young lady?"

Cheers from the crowd.

"Merely this," came her clear voice out of the loudspeaker. "As I was about to inform you when I was interrupted, these guns are not my only defense. Your leader there has doubtless told you what a great scientist he is." There was bitter scorn in her voice. "Well, a greater scientist, his teacher, stands here beside me. Between you all, and me and my guards, is an impenetrable wall of force, set up by Herr Doktor Freundlich. If you should attempt to rush our position, my machine-guns

do not need to fire upon you, for the wall of force would destroy all of you in a puff of smoke as fast as you reached it. So now will you return peacefully to your homes, or shall I give the world to advance the death ray and annihilate you?"

The crowd swayed backward.

"Do you think she's got a death ray?" Foley whispered.

Cathcart considered. "I doubt it," he declared. "Freundlich had nothing like that in his laboratories when I was with him. There hasn't been time enough for him to build one since Donna escaped and reached here."

The crowd began to rumble ominously. Someone shouted, "Cathcart has betrayed us! He let her free!" And the mob took up the cry, "Traitor! Traitor!"

"That little fool of a Donna!" Cathcart gritted. "I had them eating out of my hand, and now she's spoiled it." Then aloud he shouted. "The death ray is a lie! A fake! I worked for Freundlich. I know every item in his laboratories. He has no such machine."

"No?" came Donna's cool voice out of the loudspeaker. "Observe."

THE door of the building opened here and two soldiers emerged, carrying between them a blindfolded struggling figure, which they forced down the steps, and through the cordon of machine-guns. There they halted. The crowd watched fascinated.

Then they heaved the figure suddenly away from them. It vanished in a puff of smoke.

A long-drawn gasp escaped the crowd.

"The she-devil!" Cathcart exclaimed under his breath. Then aloud he shouted, "All right. I was wrong. But is not this an added reason for

our sticking together? Against such weapons, only unity can prevail. I'll pit my own science against that of the great Doctor Freundlich."

"Cathcart! Yea, Cathcart!" cried several voices approvingly.

"Are you with me?"

"Yea!" boomed the fickle mob, led off by Mickey Foley. "Yea! Yea!"

Turning proudly back toward the group on the steps, Cathcart called, "Lady, will you let me through the veil to discuss the terms of peace?"

She nodded, and Doctor Freundlich opened a switch beside him.

"Want me along?" asked Foley.

But Cathcart shook his head. "You stay here and carry on. The mob may get suspicious if I don't leave a hostage." Then, to the crowd, "Mickey Foley here is in charge until I return." Cathcart stepped forward.

Ignoring Donna, he turned to his former patron. "Dr. Freundlich," he asked in admiring tones, "how did you devise this force-barrier and set it up so quickly?"

The little man beamed. Then whispered, "My young friend, it was as you would say, all a bluff. There is no force-shield."

"But the man whom we saw destroyed?"

"A mere dummy, filled with silver-flash powder. But it served to hold the mob in check."

"Dr. Freundlich," Donna weakly snapped, "you talk too much!"

Cathcart turned toward her with surprise. Then pity. "You poor kid!" he exclaimed. "You're tired. And I've been thinking you heartless. I'm glad that the force-screen wasn't real."

She swayed. Cathcart caught her.

"Careful, son," cautioned Freundlich. "The crowd is watching."

"Damn the crowd!" Cathcart exclaimed, drawing her closer.

"Oh, Bob, I'm so tired," the girl breathed, nestling against him. "I was trying to carry on as Dad would have done, but I guess it is too much for me. Inspector Cathcart, take over."

"Hey, what's the big idea?" yelled someone in the impatient crowd.

Cathcart seized the microphone and held it in front of the girl's face. "Stiffen up," he urged her. "Show 'em you've still got plenty spunk. And repeat after me. I, Donna—"

She looked impishly up at him, and covered the mike with her hand. "—do take you, Robert?"

"Hell, no!"

She colored.

"I mean not just now," Cathcart hurriedly added. "We've got to get this war out of our hair first. Say: 'I, Donna Frain, pledge my word of honor to get all you people out of this colony just as fast as is feasible.'"

SHE repeated the words and continued, "Meanwhile I guarantee to maintain light and air, and hold off the rain. And to show my good faith I agree to live among you as a hostage until all this is accomplished."

"What more can you ask!" someone in the crowd cried out.

"Three cheers for Donna Frain!" shouted Mickey Foley.

The cheers were given.

Cathcart took the microphone. "And now, fellow revolutionaries," he said, "in order to show the good faith of us Populists, let us return to our homes. Those of us who live too far to travel back there tonight will be lodged in the barracks, or quartered in homes here. Those who live in nearby towns will be taken by bus and official cars." Turning to one of the officers beside him, he commanded, "March the machine-gun unit back to their barracks."

"Is it safe, Miss?" the officer ob-

jected, doubtfully staring at her.

"Obey him," Donna listlessly replied.

"Now, comrades," Cathcart continued, "the death-ray is lifted, and the troops are dispersing. Do any of you still wish to run for the exits?"

Several men started eagerly forward from the edge of the crowd.

"Yellow!" shouted Mickey Foley. The crowd took up the cry, "Yellow! Yellow!"

The men slunk back again.

"All right, comrades," Cathcart sung out. "Get going. Report at the Administration Building for quarters or transportation. I want volunteers to run the cars. Here you, Inspector Jenks, take charge of assignment to quarters. You pick out chauffeurs, Inspector Hansen. Inspector Petzold, take charge of transportation."

The crowd began to break up.

"Just a minute," Cathcart shouted. He glanced at his wristwatch. "It is now seven thirty. The sun will set at eight tonight by special dispensation."

A hearty laugh went up from the crowd. Cathcart turned to Donna Frain. "Please get the control-room at once by deferred telephone, and order them to shut off the ultra-violet lights at promptly 8:00 p.m., our time."

"You know about the lights, and how we telephone the earth?"

"I know a lot of things, young lady."

"I wonder," she mused.

TAKING Donna by the arm, Cathcart led her down the steps and toward the Administration Building. Mickey Foley joined them.

"Boss," he exclaimed, "the marines have landed, and have the situation well in hand."

Donna Frain stiffened and shuddered. Then relaxed and smiled sadly. "My poor dear father is dead," she said, "and so someone must bear the title of

'Boss' until we clean up this mess which his delusions of grandeur have created. So why not let Bob here be the Boss?"

"The title should pass by heredity to the Boss's daughter," Cathcart objected, as they entered Donna's office.

"And then by marriage to her husband," Donna added in a low voice.

"Why, I believe the woman is proposing to me!" Then hurriedly, "And I accept before she withdraws the offer." He slipped one arm around her waist and drew her close.

Dr. Freundlich too came in. Donna put through a deferred call for night-fall at eight.

Then Freundlich, his pale blue eyes beaming on Donna and Cathcart and Foley, asked, "And what of the threatened European invasion?"

"You knew of that too?" Donna exclaimed in surprise.

The three men nodded.

"I tried to dissuade Father," she said, "but he insisted on his price. I am now prepared to repeat his offer to save America, but I shall insist upon another and quite different price."

Cathcart stared at her with surprise. "You too? Why, I thought—"

"You thought I was more patriotic than my father? And you were right. My father used his great scientific powers selfishly; I intend to use them for the welfare of humanity. So my ultimatum is that America cede to the Frain Industries all the desert land in North Dakota and Montana, in exchange for this colony. We'll move our colonists there, and start afresh. What Father could do with the barren floor of a warehouse, I, with you three men to help me, ought to be able to accomplish with a mere desert."

"What a story!" Mickey Foley exclaimed.

"What a girl!" cried Cathcart, gathering her to him.

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★ ★ ★ ★ ★ around the arena the stupodes moved. Now and then the lash of Lieutenant Brobo fell on a leggor, who would yelp and jump back into line. The drummer in the band, with a flare for the dramatic, watched for Brobo's whip to descend, so he could smash out a cymbal crash in time with a stupode's jump. He achieved a comic effect with every crash. Amused thousands responded with ripples of mirth.

But comedy and tragedy are often close together. A minute after the drummer's fan reached its height, a strange tragic atmosphere descended upon the scene. It began inconspicuously.

A few spectators noticed a lovely girl suddenly rise to her feet. Her dark liquid eyes were intent upon a certain part of the parade. Her terror-struck manner shocked the crowd close about her. She was not aware of the presence of anyone—human or stupode—except for one creature, a handsome specimen with a pale, expressionless face.

"Blaine!" she cried out, in a trance of terror she ran down to the arena wall, calling. The stupodes pledged on, single file, oblivious to their surroundings.

All eyes were on the girl, her extended arms and fingers that seemed to implore as she followed after that certain stupode. Over the soft breeze of feet, over echoed whispers, the girl's cry sounded.

"Blaine! Blaine! It's me, Blaine—it's your wife! Look at me! Tell me you know me, Blaine! Blaine, what have they done—?"

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JANUARY ISSUE



WATCH FOR IT—ON SALE NOVEMBER 20



Grent lunged forward and snatched the girl to safety

LINERS of SPACE

By HENRY GADE

CHAPTER I

Five Fugitives

"ALL aboard! All Aboard!
Ports sealed in ten
minutes!"

The hoarse metallic voice of the amplifier thundered through the huge space ship seadrome to the north of San Francisco Bay.

Allen Grant picked up his bag hurriedly, crammed a five dollar bill into the motorboat pilot's hand, then dashed up the ramp toward the catwalk leading high up to the entrance port of the space ship bulking hugely in the gigantic drome.

Ahead of him he saw the hurrying figure of a girl. His swift strides were bringing him up just behind her when his glance swung up to a cargo crane swinging aloft with a last minute load of baggage. His lips opened in a gasp of warning as he saw a rope part, tilting the crane sharply. But the cry died on his lips, halted by the swift spilling of several enormous crates of heavy wood. Instead he dropped his bag and sprinted desperately forward.

In a second he swept the slim, girlish figure up in his arms and darted ahead toward the catwalk. Her scream of surprise echoed through the huge building as he clutched her tightly to him to prevent her from squirming away, as she immediately attempted to do with surprising fury.

Then suddenly the scream was lost in the tremendous crash at his heels as

Five strange fugitives flee into space. What does each fear? Then comes disaster, and there remains a chance for escape in only one lifeboat. Who will be in it. . . ?

the heavy crates smashed against the concrete with a spine-chilling roar. Spasmodically her fingers froze upon the arms she had been trying desperately to loosen, and her kicking ceased abruptly as her whole body tensed in involuntary reaction to the terrific explosion of wood and pieces of baggage that scattered around them. One flying piece struck Grant heavily across the shoulders making him stumble. But he retained his footing with a wild effort and came to a staggering halt at the base of the catwalk.

Then he turned. He stared at the wreckage on the concrete ramp behind them, uttered an emphatic whistle.

"One second from a messy death!" he exclaimed. "That was as close as I ever want to come!"

The girl stared wide-eyed at the scene, then her eyes swung around and up to his. He looked down into them, noting with a distinct shock of pleasant surprise, that they were a dazzling shade of electric blue. Her face was as lovely as her eyes, and chestnut curls peeped awry from beneath her hat, which had been pushed back by

his rough treatment and by her struggles to escape him.

"Thanks, a million!" she said fervently. "You risked your own life to run under *that* and carry me . . ."

One hand, clutching his coat, loosened, darted away as though stung, and she stared down at the gleaming butt of a weapon that had been beneath her fingers.

"A gun!" she gasped.

He set her down upon her feet abruptly, thrust her away and smoothed his coat in rapid concealment.

"Shut up!" he breathed as a steward came running down the ramp.

"Are you hurt?" questioned the steward breathlessly when he arrived. "Did . . .?"

"No," said Grant bruskiy, waving him aside. "We got out of the way in time."

The girl nodded agreement, her blue eyes still wide. "Yes," she said appreciatively. "We did. Thanks to your strong arm . . ."

"Cut it," he put in briefly. "Let's get aboard. This ship closes ports in five minutes." He turned to the steward. "Get my bag from the other side of that mess," he directed. "I dropped it there when the crane broke."

The steward made his way through the shattered debris and as he passed from earshot, Grant turned to the girl.

"Quiet about that gun!" he warned in a sharp whisper. "I did you a favor, now you do me one." His eyes bit at her sharply.

She stared at him steadily. "You can depend on me," she said calmly. "My name's Selma Marnell. What's yours?"

Abruptly, his gaze going beyond her, he gripped her by the arm, turned, and propelled her up the catwalk. "Get going!" he breathed. "I've got to get aboard!"

She twisted her head enough to ob-

serve a man hurriedly making his way from the entrance toward the ramp, then shot a quizzical glance at her rescuer and walked swiftly upward in compliance with his urging.

"I get it!" she hazarded in response. "They can't touch you without a warrant while aboard an interplanetary vessel."

"Right!" he grinned wryly. "And whatever you're thinking is okay by me. I'm not explaining, except that I'm not a murderer."

"I know that," she shot back. "No brave man is a killer."

"Hey there," came a shout from below as they reached the port and walked swiftly through. "Stop! Allen Grant, we want you!"

SELMA glanced back and saw that now there were two men. Another had appeared from the drome entrance and joined the first.

Inside the ship Grant halted and faced the purser who stood waiting presentation of their papers and passage tickets.

They both presented their credentials and tickets, then stood quietly waiting, but Selma noted covertly that Grant's hand hovered close to his left lapel. Outside the port the pound of footsteps on the metal catwalk announced the arrival of their two pursuers. They burst in.

"Allen Grant, we arrest you in the name of the City of San Francisco!" exclaimed one of them grasping Grant by the arm.

Grant jerked his arm away. "What do you mean?" he asked indignantly. "This is preposterous. It's an outrage. . . ."

"What's going on here?" demanded the purser, stepping forward. "Gentlemen, this man is a passenger on this ship, and I'm afraid you'll have to have

a warrant to detain anyone."

"We know that!" snapped the man who held Grant. "We've got one."

Selma saw Grant stiffen, noted a momentary flash of surprise and dismay cross his face. She inched forward a bit.

The man fished in his pocket to withdraw an official looking paper which he held triumphantly out to the purser. "Here it is," he announced. "A warrant to detain Mr. Allen Grant."

Suddenly Selma darted forward, snatched the extended paper from his hand, and continued on toward and through the port. With one motion she tossed the paper over the catwalk rail and watched it flutter down into the water below, just beside the massive hull of the space ship.

With a roar of rage the man with the warrant leaped forward and grasped her arm roughly, whirling her around. "What the devil do you mean by that?" he shouted, shaking her violently.

Grant sprang forward and jerked the man around. With a solid smack his fist connected with the man's chin, staggering him back against the port wall.

"Keep your hands off that girl!" snapped Grant irately.

Suddenly he felt himself pinned from behind as the second man grasped him. He fought to release himself.

The purser joined the melee in an attempt to part them. Then a new voice barked out. "What's going on here?"

The three stopped struggling and faced the uniformed figure of the ship's captain. The man Grant had struck advanced belligerently. "I am arresting this man in the name of the City of San Francisco," he mouthed through his bleeding lips.

"You'll have to have a warrant," said the captain.

"That woman threw it into the water!" He cast a venomous look at Selma. "But I trust it will not be necessary. . . ."

"He didn't have a warrant," said Selma calmly from her position against the catwalk rail. "That paper I threw overboard was blank."

The captain turned to the gaping plainclothes man. "In that case, I'm afraid you can make no arrests," he shrugged. "I can't accept your word."

"But you accept hers!" the other blustered.

"No," the captain shook his head. "Maybe it was a warrant, maybe it was just a sheet of foolscap. I don't know. And I am not allowed by law to surrender a passenger without presentation of a proper warrant. Therefore, I'm afraid you'll just have to wait until next time. I suggest that you radio ahead to our destination, and prepare a warrant of detention there. It will prove just as effective, I assure you, and entirely in both our legal rights."

For one blustering instant the officer raged, then abruptly he turned on his heel, signaled to his companion, and stalked down the catwalk. Roughly he pushed past two figures ascending the walk, and disappeared.

From her position atop the walk, Selma looked down at the newcomers with interest. They were strange figures indeed. One was the figure of a Chinese who was evidently very old, yet who walked with a firm sure tread and a calm, majestic manner and dignity. He held one thin hand inside the fold of his simply fashioned coat, and with the other clasped that of a small Chinese girl.

She was perhaps five years old, tiny, fragile, with straight blue-black hair cut in an even bob, wide-open, slant eyes, a delicate and incredibly smooth olive complexion, and dressed in rich

blue dress and coat and comfortable leather sandals.

Selma watched as the strange pair passed her, then the purser approached and said:

"We are closing the ports, Miss. We take off in fifteen minutes. You will have to come in."

She nodded and stepped from the walk, into the ship. As she made her way past the Chinese couple, and down the corridor toward the main salon, Allen Grant fell in beside her.

"Why did you do it?" he asked.

She shrugged. "Why did you save my life?"

For an instant he chuckled, then he sobered. "Okay, we're even. I save your life, you save mine. . . ."

She looked at him swiftly, wonderment in her eyes. "Save yours . . . ?" she echoed. "What do you mean?"

"Sure," he explained. "If those men had gotten me out of the drome with that forged warrant they'd have killed me and dumped me in the bay."

"Forged warrant—" Her eyes clouded.

He saw her skepticism. "Alright, Miss Marnell," he shrugged. "You don't have to believe that. Because I'm not going to explain. What I said just slipped out to justify your action in your own mind, if you needed any justification. Maybe sometime later. Maybe . . ."

"The name's Selma," she interrupted. "And for your information I'm just as much a fugitive as yourself. I—"

He gripped her arm savagely. "Don't tell me!" he said sharply. "Don't tell me!"

Surprised at his vehemence, she stared at him, then rubbed her arm as he released it with an apology.

"All right, Allen Grant," she said wonderingly. "If you put it that way, I won't."

He grinned. "The name's Allen," he said. "Just Allen."

FOR a moment there was silence, until they came to the main salon. Then he said: "Let's go to the bar and have a drink, then watch the take-off, eh?"

She agreed, and in a moment they sat sipping a cocktail.

"Those two Chinese that came aboard at the last minute?" began Selma. "I wonder who they were? The little girl was the cutest thing. . . ."

Grant laughed a little hollowly. "Yes," he agreed. "She's a sweet kid. And it may surprise you to know that she and the old man are right in our class."

"Our class?"

"Sure. She's the princess Wo Lee Tan, daughter of Wong Shek, who was Emperor of Inner China until . . ."

"Oh!" gasped Selma in pity. "I know. The Japs just killed him as a gesture of victory over the last remnant of Old China. I should have guessed . . . but why are they going to Mars?"

Grant shrugged. "Can't you see? The Japs have a saying: 'China still lives while her people live'; and that would especially hold in the case of a princess of royal blood. So, it seems that somehow the princess has escaped and is enroute to Mars as the only possible sanctuary."

"Poor kid," murmured Selma, turning back to her cocktail.

Grant downed his with a gulp and looked reflectively at the empty glass. "That makes a total of five fugitives on this ship," he observed.

"Five?"

"Yes," Grant sat a moment, then turned seriously to Selma. "The fifth is the man I'm after. I'm going to tell you his name for a good reason. Because I want to warn you to steer clear

of him, and because you're just the kind of a girl I know he'd try to take advantage of. . . ."

"What do you mean?" she bristled.

He shrugged. "I don't want to know what it is, but you *are* a fugitive, and in this case the old adage 'birds of a feather' would make you legitimate prey to a man whom I warn you is a wolf. So go easy."

"And that man's name?" she asked curiously, a peculiar sparkle in her eyes as she stared into his.

"Marvin Race."

He halted, aghast at the look of utter shock that leaped into her blue eyes, at the piteous expression of terror that flashed across her face. She choked.

"What's the matter?" he exclaimed.

"What . . . ?"

She whirled from the bar with an agonized exclamation. "I've got to get off this ship!" she cried.

He raced after her and caught her at the door. "You can't!" he said, holding her arm. "It's too late. The ship's being towed out. You'll have to stay!"

She looked at him numbly, then sagged wearily against the wall. For a moment she remained quiet, then she stiffened, shook her shoulders, and flung her head high. She forced a laugh, in a reckless tone, and said:

"Come on, let's go up and watch the take-off!"

She led the way swiftly to the upper deck, with its transparent metal roof, and side walls, Grant following puzzledly after.

Outside was the ocean, and already a mile astern was the massive seadrome. The tugs which had towed the great spaceship out into the take-off lane were veering off to one side. As they watched, flame bellowed out from the liner's stern and she began sliding across the water.

"Get into acceleration seats!"

came a command from a steward, and Grant hastily pulled Selma over to the side where there were two vacant seats. He pushed her into one and sat down beside her.

"Now," he said, as the liner gained speed in its colossal glide across the hundred mile take-off ocean lane, "why did the name Marvin Race panic you so?"

She looked at him steadily. "Because," she said calmly, but with tight lips, "I'm Marvin Race's wife!"

He gulped. "*Wife!*" he exclaimed incredulously, then at her nod, he swallowed hard. "And I came aboard to . . ."

"Don't tell me!" she said quickly. "Don't tell me! I think I know—but don't say it! Please!"

He stared at her. Then all at once he laughed. "That makes us even once more," he said. "I wonder if it will work out the same way—next time?"

"If there is a next time," she said tragically, centering her attention on the ocean outside the ship.

He wet his lips and then clamped them firmly shut as he followed suit.

They watched while the giant ship of space roared down the final miles of its water take-off, then thundered into the air with a great rush of spray that dropped swiftly below them. As they rose into the stratosphere, the white line of their wake remained visible in its incredible length on the ocean surface for many minutes. Then it vanished with distance as the spaceship came into its own and rode out into the void. The voyage to Mars had begun. And aboard the liner were five who were fugitives.

CHAPTER II

The Princess Accuses

AN explosion from the rocket room reverberated through the liner with

an ominous metallic whan-n-ng!

In three days of flight the passengers had heard no such sound before. Luncheons and leisurely promenades in the sunshine beneath the transparent metal roof came to an amazed stop. Officers and stewards led the frenzied chase to the rear of the ship to see what had happened.

Many passengers felt instinctively that the mysterious blast portended trouble, and the captain's hasty reassurance that all was well did not erase their anxieties.

A few minutes before the shock, little Wo Lee Tan had donned her purple dress brocaded with gold chrysanthemums; her kindly guardian was combing her hair.

"I must wear my yellow star, Wan Wan," the princess chirped. "It goes with this dress."

The gentle old Chinese looked at her compassionately and reminded her that the yellow star was gone, as were all the other precious family heirlooms.

"But you'll get them for me, won't you, Wan Wan?"

The old man shook his head slowly, touched by her implicit faith. He couldn't make the child comprehend that all the beloved treasures were stolen. He mustn't recall her terrifying memory of the assassinations.

Just then the explosion sounded, making the walls of their stateroom hum. She looked up questioningly.

He turned sharply toward the door. "I must see what has happened, Wo Lee Tan. Will you wait here?"

The little princess clutched him by the hand. "I'll come too."

Selma, sipping coffee in her stateroom, hurried to the door and looked down the corridor. Already the voice of an officer sounded through the announcer system urging the people not to be alarmed, declaring that nothing

serious had happened. But what was it? Selma was as curious as anyone to know, still something held her back.

In these three days she had not yet come face to face with her husband. Every time she glimpsed him from a distance she chilled with terror. So far he didn't know she was on board. The longer her inevitable meeting with him was postponed, the more she dreaded it.

As she hesitated at her open door, she scanned the scurrying figures half hoping one of them would be Allen. Her heart quickened with the thought. Three evenings they had spent together. It was dizzying, like the moment of their meeting had been, when the crane broke, and they found themselves a jump ahead of death looking into each other's eyes.

Instead of Allen, she saw the wizened Chinese coming through the corridor, clutching the little princess by the hand. Although the frail child could scarcely keep pace, she reached a friendly hand toward Selma, and chirped in English, "Won't you come too?"

Selma smiled, and the guardian must have been impressed by the sympathy in her face for he stopped.

"Wo Lee Tan, will you stay with this lady till I come back?"

The child was willing and Selma felt a glow of elation as she took the little princess into her arms, while Wan Wan trudged on.

AMONG others caught unawares by the concussion was Allen Grant. For the past hour he had loitered in an inconspicuous corner of the rear hallway, keeping close watch on room 49. He was mystified by the coming and going of a few of the wealthiest passengers to this door. What was Marvin Race's game this time?

Whatever it was, thought Allen, it loomed as a barrier against his own pur-

suit, for it would be difficult to play his hand against Race if the latter succeeded in making friends with the most influential passengers. But that was Race, suave and polished, and slick as a water snake. If Allen could only slip through that door for a glimpse—

Abruptly the way opened for him, for room 49 adjoined the rocket room. The sudden bang of exploding machinery died with a crash of walls. Race's door flung open and two or three scared guests rushed out, leaving their host standing in wide-eyed dismay before the fresh break in his wall. For an instant he seemed about to run. Then the captain's reassuring announcement sounded, and he returned his attention to his suitcases, strewn over the floor.

By this time officers flooded into his room to survey the damages. Through the chase of uniformed legs against the light, Allen could see Race hastily snapping suitcases closed.

Seizing his opportunity, Allen joined the confusion that flooded into room 49. He slipped through the door unnoticed and a moment later was hidden among the profusion of coats in Marvin Race's clothes closet.

Above the excitement he heard footsteps coming toward him. He grasped the wall hooks near his head and drew his feet off the floor as the sleek figure of Race entered to deposit the suitcases.

Allen held his breath. Three or four more cases came in and Marvin Race muttered his relief to have them out of sight of his intruders.

He went out again, locking the latticed door behind him. Allen breathed more easily. He shifted his position and found that by standing on the pile of cases he could see the goings-on in Race's stateroom through the transom.

Soon the crowd cleared out. A carpenter, having measured the damaged wall for repairs, was the last to go.

Marvin Race poured himself a drink.

Through the broken partition came the voices of the captain, the chief engineer, and others of the staff in an ominous discussion.

"If the passengers knew the truth," someone said, "we'd have a swell panic on our hands."

"But I tell you," the chief engineer insisted, "there's no danger as long as our mechanics keep on the alert. We'll simply have to work three men overtime on each shift to take the place of the automatic machinery that went hlooeey."

"And if they fail?" the captain asked.

"Atoms!" the chief engineer said with a tone that made Allen shudder.

"I understand," said the captain. "I don't belittle the efficiency of our men, nevertheless if I can transfer some passengers to passing ships, I'll do it. Moreover, I'll have daily life boat drill from now on."

The slender dark figure of Marvin Race stood tensely during this conversation. To Allen he was a study in expression, now wide-eyed with horror as he visualized himself being blown to bits by the next false blast; now stroking his narrow mustache studiously at the mention of life boats.

The chief engineer voiced a final shocking comment.

"No harm to drill them, captain, but if *this* trouble ever struck, you know there ain't but one life boat that would ever get away, and that's number one."

To Allen's surprise this strange news seemed to register in Race not as tragic but rather as the dawn of an inspiration. A wicked gleam shot through his face to remind Allen of certain terrorist inspirations in this man's past record. He was Allen's man to get, but let no one underestimate the desperate measures he might take to get away.

The discussion outside the broken wall had ended. At the mention of the doomed life boats the captain had left with a groan and gone forth to quell the rising panic as best he could.

THAT afternoon another space liner was overtaken. Several passengers transferred, but the majority preferred to stay with the ship that was speedier and more luxurious. After all, they reasoned, after the captain explained matters to them, surely the efficient man power on a ship like this could be trusted to substitute for automatic machinery. Anxieties eased.

It was mid-afternoon when Allen Grant, still imprisoned back of the transom, began to gather the evidence for which he waited. After a series of telephone calls to wealthy passengers, Marvin Race opened his doors to a group of perhaps twenty-five visitors, one of whom quickly rearranged the furniture in one corner of the stateroom and declared that he was ready to begin the sale at once. Marvin Race marched toward the clothes closet.

Again Allen concealed himself and lifted his feet off the floor. The suitcases were dragged out and opened in a display before the array of visitors.

"Now, ladies and gentlemen," said the auctioneer, "Mr. Race has explained to each of you the means by which he came into possession of this rare treasure and you understand that everything is strictly on the level."

The speaker picked up a glittering ornament from one of the open cases and held it aloft. Brilliant gold light flashed from it.

"You are aware," he continued, "that the late Chinese emperor, when the Japs had him with his back against the wall, finally bartered his last piece of gold for protection."

Marvin Race reinforced the auc-

tioneer's speech with an authoritative nod.

"Just why the emperor did not get that protection," the auctioneer was unaware that these words made Race suddenly grow rigid, "the newspapers never told us. However, that is beside the point. The Chinese dynasty is gone. Only its rarest treasures remain, and now, for the first time, they are being offered to the world. Ladies and gentlemen, these pieces are priceless! Let us begin—"

"Pardon!" someone interrupted. "How can we be certain these items are genuine?"

Marvin Race rose to answer that the hurt of such a suggestion was too deep for words. "However, if someone will kindly close the door, I'll explain in confidence. . . ."

As the auctioneer stepped toward the door, a picturesque little figure entered, a tiny black-haired slant-eyed Chinese girl wearing a purple dress brocaded with gold chrysanthemums. Although bewildered by the circle of adults looking upon her for the first time, she spoke up boldly in faultless English.

"I'm looking for Wan Wan. Did anybody see Wan Wan?"

SEVERAL in the crowd smiled at her. Marvin Race scowled and tried to motion her out. "Go away. We're busy."

The child put her dainty olive fingers to her lips in surprise and stood gazing at something in the auctioneer's hand.

"Go away!" Race demanded. "You're not wanted here." He gave her blue-black head a sharp thrust with his knuckles. The frail little figure stood in her tracks, her eyes still lingering on the glittering object the auctioneer held.

From his hiding place Allen watched with a pounding heart. Another rough

movement of Marvin Race's hand would have sent him plunging to the child's defense, regardless of consequences to himself. It was not his habit to eavesdrop and it gave him an uncomfortable feeling to have to resort to it. But here was his man, and the events were unfolding themselves before his eyes. This was no time to go off half cocked. He held tight.

The little girl marched toward the auctioneer with the light of discovery in her face, and began chattering excitedly in a mumbo-jumbo that no one could understand, pointing to the gold ornament.

"Wait a minute!" said the grinning auctioneer. "Tell us that in English."

"My yellow star!" cried Wo Lee Tan. "My own yellow star my mamma gave me. Where did you find it?"

The auctioneer raised his eyebrows to Marvin Race. "Who is this kid anyhow?"

Race paled as if asking himself the same question. "Just some dressed up Chinese waif. Get her out of here and get on with the sale!"

"Give me my yellow star!" the child cried. "I've looked everywhere. Wan Wan told me it was stolen."

A hum of curiosity passed through the crowd at these words. Anger seized Marvin Race, but he was shrewd enough to see that the sympathies of his buyers were played upon by this charming little creature. A chill shot through him as he observed her tenacity. Perhaps her claim was genuine. Could this be—?

"The youngster wants that yellow star," a millionaire spoke up, "and by George I'm going to buy it for her. How much do you want for it, cold cash?"

A transaction took place which the little princess did not understand. With many a thank-you in both English and Chinese, she took her yellow star and

ran toward the door, which the auctioneer opened for her.

As she departed, Marvin Race, who had shrunk back to the wall, broke out of his paralysis and called after her. "Wait a minute, you! I can't let you—Come back here with that!"

The auctioneer tugged at his coat sleeve and reminded him his customers were waiting for his explanation. "You were about to tell us how we'd know these articles are genuine."

"Y-yes," Race stammered. He couldn't get his mind free. Wan Wan? He didn't remember anyone by that name, though there could have been a servant who has escaped the death trap. If so, perhaps the little princess Wo Lee Tan had also escaped. "Yes—genuine! Get an earful of this, friends," he began.

A knock at the door came as a welcome interruption and, while the auctioneer answered it, he quickly mustered his thoughts.

At the door stood a pretty girl with chestnut curls and electric blue eyes. The male members of the assembly gave her a curious stare, wondering how they had missed seeing her during the past three days in space.

"Pardon me. I was looking for a little Chinese girl. Someone told me she came here—"

SELMA MARNELL suddenly found herself breathless under the well remembered glare of a familiar face. Marvin Race's lips twisted into a gloating smile of recognition that made Selma writhe with hidden agonies.

It was too late to retreat. Her husband caught her by the wrist, and from the evil delight in his face she knew he was going to play his advantage for all it was worth. These staring people were a mystery to her and for the next five minutes she was so frightened that she hardly knew what her husband was say-

ing; she agreed with him from a sharp sense of compulsion that overpowered her better judgment.

"How delightful," Marvin Race laughed. "Just at the right moment comes a witness to all I was about to tell you. This little lady can vouch for the inside story I am giving you in confidence."

The girl felt the squeeze upon her wrist tighten and she obeyed with a nod. The people listened eagerly.

"I was a personal friend of the late emperor of Inner China," said Race, now confident in his advantage. "Only a week before he appealed to the International Police for rescue, I was a guest at his palace."

The words brought a hush to the little group and the speaker, pleased with the effect, repeated his last statement with more feeling in his voice.

"When the news of the assassination reached me I was profoundly shocked, and yet—I understood. He had never trusted the International Police, and, true to his apprehensions, they betrayed him. They took his last ounce of gold and betrayed him to the Japanese."

The auctioneer stared incredulously. Race faced the tide of skepticism and cleverly turned it back.

"You think the International Police don't do such things? Remember, for all its reputation, it is still a private agency, and even in the best of organizations a crook gets in occasionally. In this case it happened to be a policeman named—Grant. But why go into details. You've never heard of Mr. Grant and you probably never will, because he fell safely into the hands of the San Francisco police the day we took off. At least, so I was told."

The listeners murmured with satisfaction to learn that justice had been done.

A slight rustle sounded from the

clothes closet. Race glanced toward it and, unconsciously noting that a coat had dropped, proceeded with his "inside" story.

"And so, friends, rather than chance a scandal, the International Police turned the treasure back to certain American friends of the late emperor, who have placed it in my hands to market it."

This neatly fitting story settled upon the prospective buyers so solidly that they fell to picking over the articles with predatory enthusiasm and soon the auction was in full swing.

In his hiding place Allen Grant breathed through clenched teeth. With one hand he clutched the woollen robe that hid him, the other held his gun.

The past few minutes had brought many a missing card face up on the table for him. Even Marvin Race's story carried glimpses of truth revealed between the lines. But there were still questions in Allen's mind, the chief one at the moment being, what had caused that coat to drop? It had fallen from a hook across the wall from him. Was someone else eavesdropping too—upon him as well as the others?

Whatever happened, Allen was sure of one thing, and he patted his pistol with the thought: No one was going to get out of this stateroom with a single item that belonged to the late emperor's treasure.

CHAPTER III

Disaster

THROUGH the announcer system the captain's strong voice filled the great liner as it shot through the heavens, to warn his passengers that alarm bells would ring in a few minutes for life boat practice. This was simply routine and no one need be frightened.

In room 49 the auctioneer and his bidders hurried to finish one of the open cases of valuables. Marvin Race hovered over the clerk's shoulder to keep tab on the totals to the nearest thousand. He frequently shot a cold glance at his wife, who sat expressionless like a convict caught escaping.

How, Allen kept asking himself, did a keen girl like Selma ever get herself tied up to a mug like that?

The activity of the room was so intense that no one knew when or how the new figure came in. He was a Chinese with a faded yellow face that was old and wise. He sat at the outer edge of the circle in a majestic manner, quietly, as if he might have just appeared out of thin air.

Perhaps he had been there all the time, some of the party whispered. To others the exotic perfumes that hovered over these ancient family heirlooms called up fantastic imaginings of slinky Oriental attendants that come and go mysteriously.

The striking thing in the attitude of this aged Chinese was the fond look he bestowed upon the treasures, as if he might be the rightful guardian.

Only Allen Grant had seen Wan Wan emerge from hiding in the shadowed corner opposite him and trudge with silent dignity to a place near the stateroom door.

When Selma saw, she involuntarily pressed a hand over her perplexed lips. In spite of her bewilderment she remembered distinctly that the stateroom door had been locked behind her.

Then Marvin Race's eyes caught upon the strange onlooker and he blurted, "Where the hell'd you come from?"

"I am not welcome?" said the Chinese in a thin cracked voice that made the bidders stop to listen.

"No! I knew that yellow star would

—!" Race stopped noticing that he had distracted his customers from business. He lowered his voice. "Whoever you are, I don't trust you. Move on!"

A faint smile showed in Wan Wan's leathery face. "Suspicious are most warm when a guilty conscience burns."

"Get out, I tell you!" Race demanded, trying to conceal his rage from his guests. The sale came to a standstill.

"Please, Mr. Race, wouldn't your customers like for me to tell them about the precious heirlooms they buy? I know each one well, for I was a servant of his maj—"

"I don't like the way you look at those heirlooms," Race muttered savagely.

"I can say the same for you, Mr. Race. But I shall go."

The auctioneer seized on a lead that smacked of commercial advantage. "You say you were the servant of the emperor?"

The Chinese bowed graciously. "His Majesty, the late Wong Shek, before his tragic assassination by an American."

"Huh?" the auctioneer blinked. "You mean, by the Japs."

"By an American," the aged creature repeated crisply. He turned to the door, the crowd staring after him dumbfounded. "I must go now, to find the little princess, who is no doubt in mischief by this time." He turned back to face the circle of puzzled countenances. "I advise you not to buy too rashly. Before we arrive at Mars I may have the pleasure of learning which of our fellow passengers it was who committed the assassination. And so, as you Americans say—" his eyes rested for an instant upon Marvin Race, turned to Selma, then flashed significantly aside toward the clothes closet, "I shall see you later."

WAN WAN closed the door upon the scene. His wrinkled yellow face glowed with a strange light. He wasn't bothered by the taunting laughter that echoed after him together with such shouts as "Nuts!" "He's cracked!" "Assassinated by an American—that's a lot of poppycock!"

He smiled to himself. The fates had blessed him with one more look upon the family heirlooms and it had filled him with a nostalgic warmth. He felt he could die peacefully. As soon as he delivered the little princess safely into the hands of the one Chinese family residing in Mars, his life would be done. And yet—

He searched his mind to find that a new interest had kindled. He was the only escapee from Inner China who knew that someone mysteriously sprang a death trap upon the royal family just before the final Japanese annihilation. Bit by bit the underlying story had pieced itself together in these weeks that he and the princess had fled the country. At last he was sure that the guilt fell upon one of three persons, perhaps Marvin Race, perhaps Selma Marnell, perhaps the Mr. Grant he left hiding in the closet.

Little Wo Lee Tan came running in to his arms.

Back in room 49 the recent words of the old Chinese had released such skepticism that the customers fell to arguing and refused to go through with their purchases. The sleek narrow-mustached Mr. Race lost his temper and threw the valuables back into the suitcase, telling his customers they could see him privately if they wanted to get in on the bargains, otherwise he'd see them in hell.

No sooner had his explosion rocked the assembly than the pretty girl spoke up defiantly and unleashed some words that left the party gasping.

"I can't let you go out of here believing the story that man told!" she cried, pointing straight at Race. "He lied to you. These heirlooms are genuine, all right, but all he said about the International Police was a pack of lies, and I—"

Her husband's quick hands clamped over her mouth and stifled her words. The party had seen and heard enough and they moved to the door.

Then the alarm bells jangled throughout the ship and everybody scrambled into action, racing through the corridors to their appointed life boats.

Selma struggled to shake free from the fingers that tightened like a machine across her face. She couldn't scream. She could only look up in terror at the gloating eyes and the cruel contorted lips of her demon husband.

This was a moment of sweet revenge for him. He flung her to the floor, snatched a key from his pocket, locked the stateroom door.

"Now you damned traitor!" he snarled, "I'll teach you to walk out—"

Whirling toward her, he stopped short, stunned to see the figure of a man before him, lifting her from the floor to drop her into an easy chair. Enraged as he was to find an intruder upon his privacy, his fury was topped by the unmistakable tenderness with which the man's hands released the girl's form. For an instant the two men faced each other.

"Grant!" Race's hand dipped to his coat pocket which suddenly bulged menacingly.

Allen didn't wait to be told a gun was on him, but struck out with a staggering left. To his surprise, Race flashed back at him with white knuckles. Allen ducked a swift blow and came in with a right to the solar plexus that brought a grunt of pain. Again Race dipped for the gun as the athletic form plunged

into him. For the next few seconds the struggling pair thudded over the floor, rolling and pummeling for all they were worth.

No gun ever came into view, and by this time Allen knew the slippery Race had tried to pull a fast one. He jerked the man to his feet and hurled him against the wall. Race lunged back but there were too many fists in the air for him. Two or three minutes later he moaned and went down in a heap.

Allen straightened up, breathing heavily, and jerked his head to throw the hair out of his eyes. The terrified look in Selma's face had given way to something that was beautiful to look upon. Although tears of anxiety still glistened in her blue eyes, Allen could tell, even though he was at the opposite side of the room, that kisses waited on her lips.

A heat wave beset his brain. The whole tangled mess mocked him as he remembered that this swell girl whose admiring eyes were on him was married to that panting wretch on the floor.

A key turned in the stateroom door, it opened, and a steward shouted in, "You're supposed to be on deck for life boat drill! Captain's orders!"

As the steward strode away, Wan Wan and the princess entered the open door.

"Ah, we are not the only truants from the captain's party," Wan Wan said to the little girl. They looked around at the wrecked stateroom. Wan Wan eyed each of the occupants and nodded knowingly. "I foresaw this meeting of you three, and now perhaps I shall have the pleasure of knowing which of you perpetrated a certain assassination." The injured Race jerked up on one elbow and glared sullenly at the speaker, who added, "Now that you have spent your physical strength, I, who have only my wits, may have a fairer chance

with you. I am convinced that one of you—"

He was interrupted by a voice from the loud speakers. It was the captain addressing the passengers on deck, explaining a few details about the life boat drill. He then announced that according to a radiogram, another space liner bound for Mars would be overtaken in two hours, and owing to the handicap under which this liner now travelled, he welcomed passengers to transfer.

"Your chance to get out of this," Allen breathed to Selma.

"Will you go too?" she asked.

He shook his head. "I've no legal right to take this man off the ship, but I'll go where he goes. You may as well know the worst, Selma. He betrayed the International Police, and now there's a firing squad waiting for him."

The Chinese spoke up sharply. "But he said *you* betrayed the International Police!"

"And he *did*," the prone man snarled, coming up to a sitting position. "I can prove it."

Wan Wan smiled and said this state of affairs got him nowhere. "If I should decide to poison someone's coffee to avenge an assassination, I wouldn't know which—"

"Don't poison *him*," Allen snapped. "I've got an official order to bring him back alive."

"Yeah!" Race growled. "That's *your* story. And just what are you supposed to do with accomplices, such as pretty girls who marry your victims and smuggle the treasures across the ocean?"

SELMA'S arms folded and her lips tightened. She knew this was coming. Allen tried in vain to protest against her talking.

"I've got to tell you," she pleaded. "It's more than just clearing myself

with the International Police. It means everything—my honor—”

A sarcastic groan from Race stopped short as Allen doubled his fists.

Selma drew herself up strong and fearless. “Marvin Race, you forced me to marry you to save your life. I was a waitress on a ship and you told me you’d stumbled into a jam. It meant your life, you said, and I was fool enough to think your life was worth saving, so I yielded, even though you wouldn’t tell me what it was all about.”

“You found out, didn’t you?” Race muttered.

“Yes. The minute the captain married us you got a tip your pursuers were hot on the trail, and five minutes later you were off in a special plane. When I went to my room I found those mysterious packages of heirlooms. I didn’t tell anyone because I was afraid—”

“There was nothing to tell,” Race snapped.

“And I never saw you again until I came aboard this liner. I never knew what happened to the treasures I left in my room. I didn’t care. I only wanted to get away and start life over again. There!”

“A hellova lot that proves against me!” Marvin Race barked. “You think you’ve read my pedigree. Wait till I give you a lowdown on the International Police, especially the one standing there holding your hand—”

“Please!” Wan Wan interrupted. “I wish to listen to you alone, Mr. Race, while you repeat your story.” He turned to the others, “You don’t mind looking after the princess? Mr. Race and I need to talk confidentially over our coffee cups. No coffee, Mr. Race? Very well . . .”

It was an unnecessary precaution, but for the sake of safety Allen passed a gun into Wan Wan’s thin hands before making his exit.

Little Wo Lee Tan led the way to her favorite spot, the nursery room, and Selma and Allen followed as light hearted as two children. In the moment the princess was absorbed in play and her two caretakers were in each other’s arms.

“You sure told him, Selma, and believe me, it was sweet music,” Allen breathed. “I’m a little worried over what Wan Wan may unravel out of this mess. He thinks I was behind that assassination, and his opinions will sift back to headquarters sooner or later, and I might find myself in quicksand. But there isn’t a ghost of a suspicion between you and me—” he searched her eyes—“is there?”

She faced him and shook her chestnut curls. “We’ve been even from the start.”

“Then from now on,” he declared, “we’re going to forget there is such a person as Marvin Race. Not another shadow can cross our minds from here to Mars. Bargain?”

It was a bargain, well worth sealing with a kiss. Or two or three.

FIFTY hours remained on the journey, and happy idyllic hours they should have been, enjoyed within the full glory of the brilliant exotic heavens.

And yet with every hour a tragedy drew closer, soon to eclipse the splendor of life on the space liner.

Marvin Race stayed close to his stateroom, spending much time staring moodily through the break the explosion had left in the rear wall, listening to the hum of the machinery and watching the fagged workers.

When the carpenter came to repair the damage, Race put him off with an excuse.

Occasionally the sleek figure was seen strolling among the life boats that lay to the rear of the upper deck in a

star-like arrangement, poised for action.

Once he made a special inquiry about the operation of the life boats, having missed all the regular drill periods. The captain showed him that the boats might be operated by anyone. The instruments were easy to understand. The only grave danger was in the take-off, for the liner's momentum played an important part, and some of the boats were less favorably located, in case the emergency was very sudden.

"Which is most favorable?"

"Just leave that responsibility to me and my officers," the captain advised.

In his mind Race clung to the chief engineer's words he had once overheard. Life boat number one. . . .

The liner seemed nearly deserted on the final day of its schedule. Cruising along at terrific speed, it had overtaken three slower ships, transferring some of its passengers to each. Its remaining guests, other than the five fugitives, were chiefly those who had always been too much engrossed in drinking or reveling or inertia to transfer.

Marvin Race made a final survey of his stateroom and smiled to himself to find that he had overlooked nothing. His own personal belongings as well as the cases of heirlooms were all snugly packed in life boat number one.

He clutched his pistol firmly. Since his encounter with Grant he had carried it constantly, for he never meant to be caught a second time with an empty pocket.

Well, a few more minutes and that worry would be gone for good. The only three persons who suspected he was responsible for the emperor's death trap would be checked off, and with them the last royal personage of the ancient Chinese dynasty.

He strolled across to the broken wall and stopped. At this hour, he knew

there were only three men in the rocket room, upon whose alertness the safe operation of the broken machinery depended. Three, and his gun was full and his hand was steady.

A few minutes later he mounted the stairs and marched directly to the life boat that bore a brightly painted number one on its side.

A terrific explosion from below sent him sprawling into his haven. It was only the work of a frightened instant to lock and seal the door air tight. Then he leaped to the controls that would send him flying away like a tangent off a star. The thrill of victory shot to his fingertips. He fumbled at the controls. There—he was all right. It was up to the automatic mechanisms now. Perhaps a split second to wait—

He turned for a fond look at the cases he had carefully packed. The rear shelves were filled—

But wait! Were his eyes playing tricks on him? They were gone! He took the length of the narrow floor in two bounds and clutched the empty shelves, aghast—

Had he entered the wrong boat? No, there were his clothes and other personal belongings where he had left them. But no cases.

The life boat was sealed. If he broke that seal—but there was no time to think of that, and certainly no time to reload his cases. Damn it, they *had* to be here! He flew from wall to wall like a mad man. . . .

OUT of the smoke and flame a life boat shot away from its mother ship to cruise steadily under its own power.

Its occupants huddled at the windows to watch the gorgeous, terrible display of wild rockets through the deep soft blackness below them.

To the little Chinese princess, nestled

safely in Wan Wan's arms, it was a spectacle of harmless beauty, whose dreadful meaning she would never realize for many years to come.

Allen, watching over Selma's shoulder, held her arms with a strong confident grip until she ceased to tremble. The narrow escape had left an indelible impression of horror upon the minds of all who were fortunate enough to be aboard. And according to the captain's first report everyone was present except three engineers who had perished in the blast.

Upon second count, one passenger proved to be missing, a man named Race.

The life boat bent its course slightly so that the mass of shooting fire could no longer be seen. The passengers hopefully turned their eyes toward the brilliant stellar object of reddish hue hanging in the sky ahead of them — Mars.

Allen seemed lost in thought when

the aged Chinese touched him on the sleeve. "I am happy to give you this signed confession from Mr. Race," he said, "and I trust that his annihilation will cause you no embarrassment when you return to headquarters."

"Well, I'll be darned — thanks!" Allen gasped. "Say, by the way, something's got me stumped. I had the notion that only life boat number one would make the grade, and here the captain sails off with us in number eleven."

Wan Wan smiled. "This is number one."

"Huh?" Allen grunted. He and Selma were both certain it was eleven.

"One," the Chinese repeated in his cracked voice. "The captain knew it was number one by its position. If yours truly took the trouble to repaint some numerals and later to transfer some hidden cargo to this boat, I did so only in the interests of justice."

(END)

« ICE POWDERS »

LATEST wizardry of science is a chemical refrigerant with fifty times the cooling power of ice! Containing bicarbonate of soda and other secret ingredients, it consists of two powders which, when mixed together in water, absorb outside heat in reacting. Anything placed in the mixture is cooled 42° in less than a minute!

To be marketed commercially under the trade name of "Quicold," the new product is harmless to handle and lasts two years without deteriorating. It is also cheap. Several gallons of liquid can be chilled at a cost of less than five cents!

While the compound is non-poisonous, it cannot be mixed with drinks because it would alter their taste. For this reason, thermos bottles and cocktail shakers will have to be fitted with an inner tube to contain the powder. But where ice is still desired, it can be made by filling any receptacle with water and immersing it in the compound. Ice is formed in the record time of seven minutes!

Because a pound of the powder equals fifty pounds of ice, "Quicold" is a boon to aeronautics through the saving it offers in weight and space. Another advantage it holds over ice is a minimum temperature of 18°! For this reason it is already being used on patients with acute appendicitis. Applied with compresses, it relieves dangerous inflammation six times as rapidly as ice!

Thus the new refrigerant, besides its own unlimited uses, seems to point the way to still further "scientific magic."

IF THE SUN TURNED GREEN

By Lyle D. Gunn

ON DECEMBER 4th of that year, people saw the first sign of the change. The sun was tinged with green!

A few paused to wonder; most hurried on about their day's affairs.

But on the following day the sight was more arresting. Over the great solar orb, as if it were a snake's eye, a thin green membrane had blinked shut!

Through it, very faintly, shone the normal yellow light. As the week wore on, that too vanished. The sun was a solid green disk—like a space-port looking out on some distant corner of space where Nature had run wild!

In the nightmarish glow that had taken the place of accustomed daylight, the alarm of the public grew. There was no word from the great observatories. That silence spread panic. Religious fanatics proclaimed that the Day of Judgment had come!

Meanwhile, another phenomenon went almost unregarded. People expect the unexpected where the weather is concerned. *But the world was steadily growing warmer.*

Christmas parties were held outdoors on verdant lawns. Trees put out new leaves and flowers blossomed in a second Spring. And on New Year's Day, an iceberg was sighted from the boardwalk at Atlantic City!

No longer could the public be kept in ignorance. The polar ice caps were melting!

As the oceans began to rise, hurried orders were given to evacuate all coastal cities. But the task of moving the millions inland produced a crisis in transportation facilities. Food shortages developed—and to the tens of thousands who died of starvation were added those trapped when the first huge tidal waves raced down Manhattan's canyons!

On the high plateaus above the new Inland Sea, refuge was found at last under the green sun. And there science's last un-

certain word was heard. The color of the sun was the effect of increased output of heat—and it was possibly on the way to the "blue heat" point of such stars as Rigel with its temperature of 16000° Absolute!

No one had ever known what maintained the sun's great mass of six billion trillion tons in its fine thermodynamic balance between the opposing forces of gravity and radiation pressure. And now no one could say where a new balance would be found.

But the word of the scientists was not needed to show that the sun was getting still hotter! The plateaus were turning into steaming jungles!

Somehow, civilized man managed to survive that first plunge back to primitive conditions, to hold his own against the beasts that lurked in every cove of giant ferns, the snakes that silently dropped down from overhanging branches. But the temperature kept rocketing, until the surface of the earth became a veritable furnace! No man could breathe that searing air and live!

Then into the earth man went, and for a while was safe in burrows beneath the mountains. There he brought forth his children in darkness, tried to preserve his last vestiges of humanity.

But still the sun grew hotter.

Visibly now it was expanding, becoming a monstrous shapeless blue-green blob. The face of the earth was one barren, blackened ruin.

And then the earth itself began to go.

The very elements that made it up began to fuse! Great fissures opened in the ground and molten metals poured in on man in his last refuge! All life was wiped out. . . .

There is little more to tell. From the space-ships in which a fortunate few had been able to flee far out beyond the orbit of Jupiter, the end was seen as the earth reverted to a glowing, incandescent ball—circling a green sun.

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Science Quiz

The following quiz has been prepared as a pleasant means of testing your knowledge of things scientific and pseudo-scientific. We offer it solely for the pleasure it gives you and with the hope that it will provide you with many bits of information that will help you to enjoy the stories in this magazine. If you rate 80% correct in your answers, you are considerably ahead of the average.

KNOW YOUR PLANETS ? ? ?

(Fill in missing words and figures)

Venus, commonly known as the or star, was named after the goddess of The Greek astronomers not knowing its orbit, thought that Venus was planets which they called and It is the planet, and of all the celestial bodies only the Moon and the Sun exceed it. It is the planet from the sun, and has a nodic period of days, and a sidereal revolution of days. Venus is one of the planets that do not have satellites. Its period of rotation is not known, due to the planets' atmosphere, though various figures have been given. Venus is in many ways similar to the Earth, having a diameter of app miles, a density % that of Earth, and a surface gravity % that of Earth.

SCRAMBLED WORDS

1. The visible surface of the Sun. SHOPHOPE-TER
2. A gas found in the atmosphere. NORAG
3. Second largest asteroid. LAPALS
4. A common tree. HRICB
5. A type of ship. SPOLO

WHICH ONE ? ? ?

1. The jellyfish is a—Coeval, Coelenterate, Coenomen, Circumlocution
2. A carthorse is a—plant with red berries and a thorny stem, a musical instrument, an old type of cannon firing a ball of 48 pounds weight.
3. Shale is a—Metamorphic rock, Igneous rock, Aqueous rock, Aeolian rock.
4. Priamus is—an asteroid, a satellite of Saturn, a comet, a crater on the moon.
5. The velocity of sound increases approximately 2 ft. per second for a rise in temperature of—1 Cent. deg., 2 Cent. deg., 3 Cent. deg., 4 Cent. deg.

STAR DUST

1. Name the three parts of a comet.

2. Which planet has the greatest number of satellites?
3. Which planet has the most eccentric orbit?
4. In what constellation is Antares?
5. How many planets were known up to 1781?

WHY? WHEN? WHAT? HOW?

1. Why do meteors "burn"?
2. What is a stellar interferometer used for?
3. When was Pluto discovered?
4. How is it possible to discover binaries that even a telescope will not separate?
5. What is a timber "boom"?

TRUE OR FALSE

1. A starfish is an Echinoderm. True..... False.....
2. Titania is a moon of Saturn. True..... False.....
3. The Greeks made widespread use of the arch and the vaulted roof. True..... False.....
4. A tornado is a cyclonic storm. True..... False.....
5. Vitreous Humour is a sarcastic joke. True..... False.....
6. An atoll is a circular coral reef enclosing a sheet of water. True..... False.....
7. Vesta is the only asteroid visible to the naked eye. True..... False.....
8. Rockets are most efficient in a vacuum. True..... False.....
9. Columbus used a clipper for his first trip across the Atlantic. True..... False.....
10. The length of a bowitzer averages 60 calibers. True..... False.....
11. Like magnetic poles attract each other, unlike repel. True..... False.....
12. Houseflies belong to the order Diptera. True..... False.....
13. Mars is a terrestrial planet. True..... False.....
14. Diptercarpacese is a prehistoric fly. True..... False.....
15. Pure distilled water is a poor conductor of electricity. True..... False.....

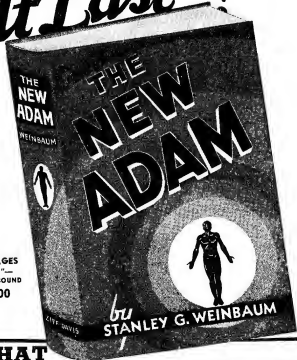
STRIKE OUT THE WORD THAT DOES NOT CONFORM

1. Hydrogen, nitrogen, oxygen, helium, heliotrope.
2. Europa, Patroclus, Umbriel, Iapetus, Dione.
3. Monoplane, biplane, aquaplane, triplane, hydroplane.
4. Camelopardalis, Cassiopeia, Canes, Capua, Capricornus.
5. Torpedo, rifle, pistol, cannon, howitzer.

(Answers on page 143)

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Meet the Authors

DON WILCOX

Author of

BEN GLEED, KING OF SPEED

A QUARTER of a century before my debut in *AMAZING STORIES*, I used to drive the Jersey cow back and forth from the pasture past the "Garden of Eden," located in my home village of Lucas, Kansas.

The "Garden of Eden" was, and still is, a grotesque cement structure constructed by a Civil War veteran to parody the Bible story of the creation. It attracted visitors from both ends of the nation—attesting to the persistent popularity of the oldest amazing story in our adopted religious folklore recorded by that pioneer science fictioneer, Moses.

Today science-fiction reaches forward more often than backward, but I suspect it still bears some similarity to the legends of Moses' time; namely, it fulfills man's craving for answers to the unanswerable; it builds answers from such knowledge as we have available; it gropes for probabilities—the most reasonable and at the same time the most entertaining ones.

In my opinion, this is all to the good. Readers who absorb science and fantasy stories as a share of their intellectual diet are bound to more fully appreciate the swift changes of modern civilization. Especially those readers who consciously or unconsciously catch the distinction between scientific possibility and fantasy-magic.

To be sure, there is a likelihood that science-fiction may lead to habits of wishful thinking. We hasten away the ills of the present and rocket over the hurdles of the future. We wipe out encrusted civilizations and build new shining cities in fiction with far less effort than it would take to brace up the sagging front porch on that dilapidated house a couple of blocks down the street where the slums begin. It's great fun to dream, and so much easier than to do. And I'll admit this point worried me a little when I first undertook fiction writing.

However, I couldn't get around the fact that Utopian ideals have played an indispensable role in guiding the destiny of mankind. Some fine books have been written to show that through the long trail of history the wishful thinkers have continually pressed the cockeyed human procession toward saner and happier living.

One of my chief amusements, as I got on speaking terms with *AMAZING STORIES*, was to discover how this Utopian idealism glowed from its pages.

Social significance seems to fit in naturally with the bigness of science-fiction themes. Sometime I want to take a day off and analyze a few issues of this magazine from such a viewpoint. Doubtless

the editors do it constantly and I've a suspicion that a little black and white on this subject would make many a veteran reader pause to ponder how much social vision he picks up with his stories. Non-readers would do well to chew on this. Even the world of formal education might bend its proud head in an ever-so-slight nod of recognition if it discovered how science-fiction paves the way for the swifter, more imaginative age before us—thanks to the science pulps.

Pulps! There was another amusement to me. You regular readers will laugh, and you have a right to. Yet it's straight goods. A year ago I thought—pardon me, but I'm quite new to this field, much to my regret. Like many non-pulp readers I thought a pulp was a pulp—all pulps were peas out of the same pod. They were all about the same size. They all blazed attractively in neat rows on the magazine stands, like so many shining faces in a church choir; but I never stopped to think how much difference there is in the mentalities or the politics of the folks that somehow get grouped together in a church choir.

Well, I started out to give you my life history and got as far as driving my cow past the "Garden of Eden." To take the story from there, I often stopped to listen to the old Civil War veteran talk. And, if it isn't a sin to say it, I found his skepticism fully as entertaining as the classic from Moses, which centuries of science had turned into fantastic legend; and this may have something to do with my being able to write fantasy today.

—Don Wilcox, Chicago, Illinois.

MANLY WADE WELLMAN

Author of

HOK GOES TO ATLANTIS

I HAVE read perhaps fifty books and other accounts of ancient Atlantis, all the way from Plato to Ignatius Donnelly, and I am convinced that amid all the imaginative flowerings there are certain sound kernels of truth. There must have been a community in ancient times, with a culture surpassing all its neighbors; it must have been destroyed—this conviction prevents me from writing tales about Atlanteans today—and there must have been some survivor, a strong swimmer or swift runner, who told his children about it. That story, told at second hand as the children grew up, repeated and re-repeated, has come down to this day.

The only hero of antiquity I know who might have escaped the destruction is Hok, the Stone Age man about whom such flattering things have been said by readers of *AMAZING STORIES*. Hok is very real to me, in appearance and character. I make no doubt but that the memory of this

sturdy old cave chief who survives today, in stories about Hercules, Gishdubar or even Paul Bunyan. And, as I ponder this, the whole tale took form in the back of my mind, in that rather lurid movie theater where so many fantastic dramas have been unrec'd. Perhaps it's a vision of what really happened. I defy anyone to prove the contrary.

One or two have asked me if I intend to write further adventures of Hok. That is entirely up to the readers of **AMAZING STORIES**. Hok, for all his savage simplicity, is a thorough gentleman. He won't appear where he is not wanted. I'd appreciate any reactions to him, whether flattering or critical.—*Manly Wade Wellman*.

FRANCES GARFIELD

Author of

GULPERS VERSUS EARTHMEN

IN "Gulpers Versus Earthmen", I have dared to assert that the pioneer woman of the future may not always be brilliant, glamorous, inspiring; that she may cry out against the strange and limited life of a settler on a far planet; that she may not wait for a valiant rocket-flyer to rescue her from danger—that, in fact, she may be as human and fierce and reckorable as was her ancestress, the pioneer woman of the past. Life on space-frontiers will prove hard and toilsome, you may be sure. There will be dangerous times, too, but danger has

always been the stout heart and strong hand to meet it.

As for myself, I am tall, demi-blonde, a native Kansan of old Southern American stock. I was educated to be a musician. Once a fortune-teller, very old and crack-voiced, predicted that I would travel, gain much applause, and meet a big man with a dark moustache. My travelling, I hope, is well begun—my eyes are on England, France and the East, if only they will stop making cannon. I thought that applause was going to be mine when I started a stage career, but then I stopped, on the threshold of my first job. Perhaps not all producers are so rude, but that particular one was. So I am writing instead. Fantasy is my favorite endeavor, and I have hit one or two editors with tales about ghosts and witches. "Gulpers Versus Earthmen" is my first venture into science fiction, and I think I shall like it.

The big man with the dark moustache crossed my path several years ago. He was Manly Wade Wellman—I think one of his stories appears in this same issue of **AMAZING STORIES**. We were married, and have lived happily ever after. He is not at all like the lumpy husband in my story, and he pays me the compliment to say that I am like Olanna, his cave heroine, but of fairer complexion.—*Frances Garfield*.

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QUESTIONS and ANSWERS

This department will be conducted each month as a service of information for our readers. Address your letters to Questions and Answers Department, AMAZING STORIES, 608 S. Dearborn St., Chicago, Ill.

Q. Will you please let me know where and when the next Science-Fiction Convention will be held?—T. H. Guertin, Box 194, Ware, Mass.

A. The next Science-Fiction Convention will be held in Chicago. For further details we suggest that you write to: Chairman of the Convention Committee, c/o Illini Fantasy Fictioneers, 3156 Cambridge Ave., Chicago, Ill.

Q. How is United States standard time calculated?—Rodger Quen, Denver, Colo.

A. The United States Naval Observatory has three standard clocks running in constant temperature vaults, electrically wound and sealed to keep the air pressure constant. Meridian circle observations of a group of selected stars are taken regularly on clear nights, and from these observations, the errors of these standard clocks are determined.

Q. How deep do submarines go?—Whitfield White, London, Eng.

A. The standard Navy test for a submarine is around 200 feet. However, submarines have been known to go down as deep as 350 feet. At this depth water begins to seep through the seams.

Q. What was the price of postage from the United States to England by the first steam vessels?—Joe Tinker, New Orleans, La.

A. The Royal William, one of the earliest trans-Atlantic steam vessels sailing from New York, August 4, 1833, quoted a price of \$148. This included wine and "stores of all kinds." The Royal William also carried letters for 25c a single sheet, or \$1.00 an ounce. Today you can mail a one-ounce letter to England for 5c.

Q. Can one estimate how far away a flash of lightning is?—Burton C. Cloudy, Boston, Mass.

A. You can tell rather accurately how far away lightning is if you will take a stop-watch and note the number of seconds between the flash and the sound of the thunder which follows. If as much as five seconds elapse, it is about a mile away, since sound travels only about 1100 feet per second, and there are 5280 feet in a mile.

Q. Who made the first steel plows in this country?—Thaddeus Solosky, Louisville, Ky.

A. As far as we know the first cast-iron plow was demonstrated in 1797 by John Newbold. It was similar to cast-iron plows which were demonstrated a short time earlier in England. When first demonstrated, farmers refused to accept the plow because they feared the detrimental effects of iron upon the soil. But soon the tough quality of the soil in the Mississippi Valley overcame this opposition and the steel plow started to come into common existence.

Q. Is it true that Germany has submarines which do not use electric motors when running submerged?—Sidney Rolf, St. Louis, Mo.

A. The Germans claim to have submarines which use internal combustion motors for both surface and under-water use. This eliminates bulky batteries and electric motors, leaving more room for torpedoes and arms. It is claimed that compressed oxygen and hydrogen are stored aboard to be fed to the motor when running submerged. Exhaust gases are released under-water. If this is the case, it seems reasonable to believe that such a submarine could be spotted by the trail of blue diesel smoke rising to the surface in the submarine's wake. On the other hand, there is the possibility that the exhaust gases are chemically treated and carried aboard. If any of our readers know the answer to this question we would be glad to hear from them.

Q. Tell me something about torpedoes.—Frank Vance, Brazil.

A. Most submarine torpedoes are about 21 inches in diameter, weigh around a ton, and cost about \$3,000.00. They are driven by a miniature steam turbine and are controlled by a gyroscope. They can be turned while traveling beneath the surface.

Q. Can the wood in a tree be dyed before the tree is felled?—Clark Jones, St. Paul, Minn.

A. Scientists have dyed living trees with different aniline dyes to study the flow of sap, and many different methods of injection have been used. Attempts have been made to manufacture dyed trees for use in the construction of furniture. However, in most cases the dye only colors part of the tree, leaving the rest an uneven shade. As a result the material is cut up into small articles such as buttons, bowls, cigarette cases, etc.



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DISCUSSIONS



AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brick-bats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

ACKERMAN NO. 1 FAN?

Sirs:

I take issue with "X" as to his entire pick of leading fans with one exception. Mr. Taurasi and Mr. Moskowitz are much too new to the science-fiction scene to be top-flight fans already, despite the fact that they recently sponsored a convention. I am led to believe that that convention actually hurt their popularity rather than boosted it.

My choice as "top" fan is Mr. Ackerman of 530 Staples Ave., San Francisco, Cal. I believe he has been leading the reader-field for some years and see no reason for his popularity declining in recent times. When I began reading science-fiction magazines in about 1934 I recall reading some letters by Mr. Ackerman back then and the tone of them gave rise to the belief that even at that date the San Francisco reader was quite well established.

Then for a second or third choice, I would choose a few other well-known names who have been in science-fiction for a longer time, such as Mr. Darrow of Chicago, Mr. Tucker of Bloomington, Ill., or Mr. Wolheim of New York.

Louise Ross
Carlock, Ill.

All the readers of AMAZING STORIES are No. 1 as far as your editor is concerned.—Ed

WANTS AMAZING ONCE A WEEK

Sirs:

I regret to say that I just ran across AMAZING STORIES the earlier part of this year and fully realize all I must have missed previously when I read your Discussions Column. In the June issue I ran across an article written by Wilbert J. Widmer of West New York, N. J. I am inclined to believe that his mention of the booklets of series, etc., would be an exceptionally fine idea and I'm convinced that if more readers would take an interest and let you know that they would like the idea of putting out the different series, or even individual stories in booklet form, there soon would be enough demand for them to pay you to put them out. In this way other unfortunate like myself who have not known your swell magazine for very long could catch up on some of the stories they have missed. And besides, AMAZING STORIES only comes once a month and I easily could read one in my spare time, one each week. These little

booklets would help fill in the vacant space from month to month.

Lee McGinnis
4444 Dover
Chicago

BOB TUCKER SAYS BOB TUCKER NO. 1 FAN!!!

Sirs:

Jack Darrow top fan? T. Bruce Yerke top fan? Don Wolheim top fan? Sam Moskowitz top fan? James Taurasi top fan? F. J. Ackerman top fan? Fish-tosh. Pffft. Pffft. I scoff.

There is only one top fan: Bob Tucker! Who is the man that originated and ably ran the only unofficial department in any professional magazine? Bob Tucker and his SPWSSIFM. During the lean years when things were tough and stories dull, the SPW kept the reader's columns more interesting than the magazine's contents. Bob Tucker drew more readers than any professional author!

Who is the man that puts out the two most popular fan mags in existence? Bob Tucker! His weekly gossip-sheet is acclaimed the leader of its field; and his annual Yearbook was, until recently the only thing of its kind in the world. (An imitator just appeared.) Who gives away more fan publications than any other five fans publishing? Bob Tucker! Anyone may have a sample copy of his newsletter, "Le Zombie" by merely sending a postcard asking for a copy. That may sound like a plug, I know, but famous fan Tucker deserves it!

Who is the man whose very absence at the recent N. Y. C. convention created a furore? Bob Tucker! A round dozen letters poured in on him bewailing his non-appearance, some claiming certain events would have been vastly different had he been there!

Who is the man who has been in science fiction some ten years and just this summer put out a free fan magazine commemorating the anniversary? Bob Tucker! Copies may still be had for 15¢ stamp!

Who is the man who has created the most entertaining, humorous, different, and regular character that has become as great an institution as the famous "Hawk Came"? Bob Tucker! His Hoy Fung Pong, nicknamed "the Chinese Buck Rogers" was born in a 1933 fan magazine, swept to glory in a 1934 professional magazine, and continues today unabated, acclaimed by all except a

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disgruntled fan called "Loki" as the utmost in fan humor!

All in all, just who is the greatest fan today? The best liked fan? The most popular fan? The person who does most to further fandom? The bright and shining mark for all readers to shoot at? One, and one only: Bob Tucker.

I vote for Bob Tucker as top fan.

Bob Tucker,
P. O. Box 269,
Bloomington, Ill.

What a man Tucker!—Ed.

LIKES SERIALS

Sirs:

I was glad to see you publish the first part of another serial. Serials are the only way to present long novels in a short story magazine, and I am sure that you must get a lot of fine stories that you can present no other way. Therefore I would like to see them continue. If you decide to run any more, however, please make them in two or three parts. When they are any longer it becomes too tiresome waiting for them.

George P. Culbert,
335½ Woodland Avenue,
Williamsport, Pa.

We don't intend to let any of our serials run any longer than three parts.—Ed.

WANTS MORE HUMOR

Sirs:

May an old time S-F fan write to you? I have been reading AMAZING STORIES since its conception way back in 1926. I have not missed an issue.

I want to present to you my sincerest congratulations for making "our" magazine what it is today. The finest in the world.

Your writers cannot be bettered in this field of authorship. They are all first class authors and present their stories in a very readable manner.

Your artists are good also; but for me personally I prefer the simple line drawings of Paul. He is the undisputable "top."

I would like to see more of Eando Binder's "Adam Link" stories.

I would like to see in print some more of those side-splitting "Hick's Inventions with a Kick." Surely there is a lot of humor in scientific fiction, for it all cannot be grim, fighting, go-getting, super scientist-win-all-battles sort of stuff. Are not these men human? (Or supposed to be?) Where there is life there is humor; so let us have it if you can get it.

Willis K. Grueden,
Rt. No. 3, Box 21-Z
Fresno, Calif.

Both Nelson S. Bond and Robert Bloch have promised us more humorous stories for the near future. And Adam Link comes back in January.—Ed.

A BOND FAN

Sirs:

Bond's story, "The Priestess Who Rebelled" is as fine a story as I've ever read in a science-fiction

magazine. I enjoy stories of gadgets, gargoyles and rocket-ships as well as the next fan, but Bond's "Priestess" has a human appeal and a logical background that sets it apart from run-of-the-mill contributions.

Let's see a few more "Different" stories

William Bradner,
213 Wellington Rd.,
Jenkintown, Penna.

Manly Wade Wellman's story **HOK GOES TO ATLANTIS** in this issue is a splendid example of one of your "different" stories. It is a sequel to **BATTLE IN THE DAWN**, which ran in the January, 1939 issue, which was a winner with the readers. We think **HOK GOES TO ATLANTIS** is an excellent sequel.—Ed.

BACK YARD TIME WORLDS

Sirs:

Judson's **ANNIHILATOR** is by far the most logical story printed for a long time. Its wide scope, easily understandable plot makes it unique in the science fiction language. I could almost believe it really happened and that there are worlds within worlds of time right in our own backyard.

Elwood E. Skippy,
Cuyahoga Falls, Ohio,
R. R. No. 1.

Your editor while reading Judson's **ANNIHILATOR** was a bit worried when a squadron of Army planes flew over Chicago's loop. He expected one by one they would vanish from sight. The story was convincing!—Ed.

1940 CONVENTION

Sirs:

Doubtless the readers of **AMAZING** would be interested in learning that the 1940 World Science Fiction Convention will be held in Chicago, the date set tentatively for late next summer. Sponsored by the "Illini Fantasy Fictioneers," a live-wire group of Illinois fans, including many other nationally known enthusiasts, this affair will be of unusual interest to all followers of science fiction in its various forms.

The 1939 World Convention, which was held in July in New York City, was a success and gained country-wide recognition in *Time*. We want to make the 1940 Convention an even greater event for fans and readers the country over, enabling everyone to attend by the central location of the Convention city. One of the aims of the 1940 Convention is to make the world science fiction conscious, and we feel sure that this affair will gain no small amount of notoriety in its very uniqueness. The groundwork has already been laid by the Convention Committee, but since this is to be an event for the fan as a whole, we want YOUR suggestions. We enlist YOUR support in this worthy undertaking, for in the last analysis, it is YOU who really make the Convention a triumph. Will you be there?

For all information contact the Chairmen of the Convention Committee, care of "Illini Fantasy



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Keep up the good work. All the New York fans that I know are raving about N. S. Bond's yarn.

*Millie Taurasi,
137-07, 32nd Ave.,
Flushing, N. Y.*

I've been praising Bond to the high heavens, but his best work is yet to be printed. Watch for Sons of the Deluge starting in the January issue. Then you'll really have something to rave about. Binder has recently come through with another one of his superb Adam Link stories. Keep your eyes peeled for that too in the January issue! With Nelson S. Bond and Fando Binder and Adam Link; well, well, we predict you'll read another entire issue!—Ed.

A CONVERT

Sirs:

I have recently started to read these so-called stories of fantastic nature and have come to the conclusion that they are the most interesting and trouble-relieving sort of fiction that I ever had the pleasure to read.

I am writing this to assure you that I have become a very enthusiastic reader of science fiction.

I was going away on my summer vacation when a friend of mine asked if I would relieve him of a group of magazines on science-fiction. To oblige him I did so and that was the greatest joy of the summer. I was ready to really throw them out when I took them from him because I considered them a lot of junk but I thought I'd read AMAZING for the fun of it and I'm glad I picked AMAZING Stories of April '39. The stories from *World Without Women to Revolution on Venus* were top notch fiction. Your discussion part of the book immediately caught my interest. Thus I now read all sorts of fiction especially AMAZING as it was my starter as much as possible. When I have time I read as much as 2 magazines a day and I literally gobble up all the real science info I can.

Etra Stein.

MORE ABOUT "CORN"Y" STORIES

Sirs:

I see in the Discussions department a letter by Mr. Hamilton concerning your "corny story" policy, and after reading this missile I decided to throw my two cents in the pot.

Personally I don't care particularly for your policy although it has its merits. Some of your stories I have liked tremendously. A few of them are: WHERE IS ROGER DAVIS, another story by Reed, DR. CRADDOCK'S AMAZING EXPERIMENT, THE MAN WHO WALKED THROUGH MIRRORS, this is the second one by Bloch to appear in your pages that has been very good. I also enjoy Robert Moore Williams' stories.

I wish you would print a few serials. "In the Nov. issue there is a serial by Ralph Milne Farley," you will say, but I don't mean two part serials I mean something I can sink my teeth in, three part serials. And also I don't want a serial

about once a year but continuously and I feel sure that others will back me up in my views.

*Norman Kaudron,
2516 Van Buren Avenue,
Ogden, Utah*

A LADY THRILLS

Sirs:

Thrill is a mighty stale word to use for the feeling I had yesterday when I received your notification of second prize, and today when the prize itself arrived. I want to thank you for the picture, and also please thank Mr. Krupa for me. I enjoyed the description of the "mechanical planet" which you printed, and I heartily admire Artist Krupa for his idea as well as his workmanship, also your good judgment in using it. I certainly am lucky to get the finest cover (front or back) you've published. (And I've always been an ardent admirer of Paul!)

*(Miss) Frances E. Bedford,
Billings, Missouri*

SPICE WITH VARIETY

Sirs:

"History in Reverse" was a pleasant surprise. Besides being a good story it was a novel idea having it in original radio script. I hope to see more stories by Lee Laurence. However the best story in the issue was "Judson's Annihilator." Your back cover paintings are superb, but I can't say the same for the front covers. I am glad to see that you have a larger variety of artists now. Fuqua and Krupa are good but one tire of them in every issue. "The Priestess Who Rebelled" was very interesting but belonged in FANTASTIC ADVENTURES, which, by the way, is a swell magazine.

*Philip Bronson,
224 W. 6th St.,
Hastings, Minn.*

What do you think of the cover on this issue? You have been asking for rocket ships; so we just had to give them to you.—Ed.

CORRESPONDENCE CORNER

Henry D. Goldman, 3118 Perryville Ave., Pittsburgh, Pa. is trying to form a fan club. Any steady STF fan interested in Pittsburgh and vicinity get in touch with him. . . . John Cunningham, 2050 Gilbert St., Beaumont, Tex., wants to correspond with anyone, anywhere. . . . Clifford J. Awak, 282 Stevens Ave., Buffalo, N. Y., 16 yrs., interested in Photography, Chemistry and other Scientific subjects wants correspondents. . . . Josephine Nickles, 145-17, 119th Ave., So. Ozone Park., New York, is interested in swimming, reading, football and will answer all letters promptly. . . . Donald A. Dow, 617 Eggert Rd., Buffalo, N. Y., wants correspondents, especially foreign, who are interested in trading match book covers and postcards.

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... Peggy Mockler, 131 Maple Ave., Wilmette, Ill., 16 yrs, would like to correspond with either sex her age and older interested in writing SF. Her bobby is building dynamo. ... Harold MacDonald, Girard College, Phila., Pa., 15 yrs., interested in Chemistry, Physics, Astronomy, would like to correspond. ... H. Heditch, 45 Froddington Rd., Portsmouth, Eng., wants pen pals of either sex in England. ... Shirley Hopstadler, 395 Ft. Washington Ave., N. Y. C., wants pen pals between 16 & 20. ... Louis I. Schreiber, Box 150, Elizabeth, N. J., will exchange old issues of SF mags, dating back to 1931, for unused U. S. Commemorative stamps or stamps of other countries. All his letters will be answered the same day they are received. ... Norman Holtzaway, 212 Philips Terrace, Union, N. J., wants pen pals in northern Jersey mostly. He is interested in Aviation, Photography, Science, Swing. ... Sterling Hicks, WSGPW wants correspondents and may buy back issues of STF. ... Neil Sheffield, 7435 Sherman, Houston, Tex., is forming International Correspondence Club, especially with members from each possession of Eng. and U. S., he is 17 yrs. ... Gene Thornton Newsome, 1503 Lincoln Ave., Norman, Okla., wants correspondents interested in journalism and photography. ... E. W. Fry, 5, Spinner's Walk, Windsor Berks, Eng., wants pen pals from U. S. especially, both sexes, 15-18. ... Myron Levenson, 1137 King Ave., Pittsburgh, Pa., 13 yrs, wants pen pals. ... Robert W. Dawson, 14 Wesley Ave., Atlantic Highlands, N. J., wants pen pals interested in radio, Physics, Chemistry & Mythology, either sex, 15-20. ... Allen T. Roebuck, 49 Durban Rd., Feltham, Middlesex, Eng., wants correspondents, either sex, any subject. ... W. B. Smith, Watergate, So. Pertherton, Somerset, Eng., wants back copies of AS. ... Philip Bromson, 224 W. 6th St., Hastings, Minn., wants pen pals and copies of British SF mags. 15 yrs. ... William Eschuk, Box 463, Manville, N. J., wants correspondents connected with mining occupations. ... S. Parrott, 68 City Rd., Cardiff, S. Wales, Gr. Britain, wants copies of AS from Apr. 17, 1926 to Apr. 1930, inclusive. ... Billy Homes, 1513 Dushany St., Houston, Tex., wants to hear from anyone interested in organizing a SF club, 16 yrs. ... D. P. Bellaire, 684 Royce St., Altadena, Cal., has 250 back issues dating from 1926 he wants to sell. Send a want list for prices. ... C. M. Miller, Gresham, Neb., wants to dispose of 240 SF mags dating from 1928, wants to sell in complete lot at original newsstand prices. Will send complete list & price. ... Evelyn Obrenstein, 257 S. Cecil St., Philadelphia, Pa., wants pen pals from everywhere. ... Gus Abrecht, Jr., 219 Shelley Ave., Elizabeth, N. J., 17 yrs., wants pen pals. ... D. Gilbert, 25, Junction Rd., Highbate, London, Eng., wants pen pals about 15 yrs. interested in stamps (preferably). ... Sydney Nichol, 66, Milburn Rd., Ashington, Northumberland, Eng., wants to hear from young girl of 16 or 17 who could tell him of N. Y. and U. S.



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Why Can't You Write?

It's much simpler than you think!

So many people with the "germ" of writing in them simply can't get started. They suffer from inertia. Or they set up imaginary barriers to taking the first step.

Many are convinced the field is confined to persons gifted with a genius for writing.

Few realize that the great bulk of commercial writing is done by so-called "unknowns." Not only do these thousands of men and women produce most of the fiction published, but countless articles on business affairs, social matters, domestic science, etc., as well.

Such material is in constant demand. Every week thousands of checks for \$25, \$50 and \$100 go out to writers whose latent ability was perhaps no greater than yours.

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NOVEMBER
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QUIZ ANSWERS

(Quiz on page 127)

KNOW YOUR PLANETS

-morning evening Roman
 beauty two Phosphorus
 Hesperus brightest fourth
 584 225 three dense
 (thick, deep) 7700 90 85.

SCRAMBLED WORDS

1. Photosphere. 2. Argon. 3. Palms. 4. Birch.
 5. Sleep.

WHICH ONE

1. Coelenterate. 2. an old type of cannon firing, etc. 3. Aqueous rock. 4. an asteroid. 5. 1 Centigrade degree.

STAR DUST

1. Coma, nucleus, tail. 2. Jupiter (eleven).
 3. Pluto (0.25). 4. Scorpio 5. six (Mercury, Venus, Earth, Mars, Jupiter, Saturn).

WHY? WHEN? WHAT? HOW?

1. When they hit the Earth's atmosphere the friction heats them to incandescence.
 2. To measure the diameters of stars, etc.
 3. 1930.
 4. With a spectroscope.



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5. A boom is a series of large logs joined end to end with sections of chain. It is used to raft wood.

STRIKE OUT THE WORD THAT DOES NOT CONFORM

1. Heliotrope—the rest are gases.
 2. Patroclus—the rest are satellites.
 3. Aquaplane—the rest are aeroplanes.
 4. Capus—the rest are constellations.
 5. Torpedo—the rest are weapons firing a projectile through a tube by means of explosives.

TRUE OR FALSE

1. True.
 2. False—it is a moon of Uranus.
 3. False.
 4. True.
 5. False—it is a transparent jelly-like substance between the lens and the retina in the eye.
 6. True. 8. True. 10. False. 12. True. 14. False.
 7. True. 9. False. 11. False. 13. True. 15. True.

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MONTHLY MERIT AWARD

This month we are pleased to announce that our newest, and most promising author, Mr. Nelson S. Bond, has earned your approval, and upheld our predictions of some time ago, by placing first with "The Priestess Who Rebelled." As his reward, we present him with our monthly \$90.00 award for merit. Congratulations Mr. Bond. Just between you and the readers and myself, we played the right hunch when we bought your story. But here's an interesting fact, which goes to prove Mr. Bond's right to the prize. He had to overcome the sensational competition of "History In Reverse" which came so close to pushing him to second place that for a few days we thought we'd have to award duplicate prizes. As it was, Bond won out only by 9 votes!

The reader who cashes in this month is Robert Jackson, 239 West State Street, Barberton, Ohio. He ranked the stories exactly as they appear in the final check-up, with the exception of placing "Judson's Annihilator" in second place along with "History In Reverse" rather than in third place. Congratulations, Mr. Jackson. You certainly know how to pick 'em. This was a really tough month, and no other reader came close to your record.

Here are the final standings of the October stories: (2700 Votes represents 100%.)

Titles	Votes	Rating
THE PRIESTESS WHO REBELLED.....	1926	.71
HISTORY IN REVERSE.....	1917	.71
JUDSON'S ANNIHILATOR	1743	.66
THE MISSING YEAR.....	1575	.58
THE RETURN OF SATAN.....	1314	.49
THE ICE PLAGUE.....	999	.37

Now, who will win for November? If you haven't already gotten your vote in, hurry with it. As for this issue, our offer is continued, and the author of the best story will receive \$50.00. The reader who comes closest to the winning lineup of stories, and who writes the best letter of 20 words or more on why he or she selected story number one for that position, will receive \$10.00. Get in on the fun, and make yourself a little easy money. Use the coupon below, or submit a reasonable facsimile.

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In my opinion the stories in the December issue of AMAZING STORIES rank as follows:

	No. Here
FUGITIVES FROM EARTH.....	_____
BEN GLEED, KING OF SPEED.....	_____
HOK GOES TO ATLANTIS.....	_____
GULPERS VERSUS EARTHMEN.....	_____
THE HIDDEN UNIVERSE.....	_____
LINERS OF SPACE.....	_____

Name

Address

City State

Attached is my letter of 20 words or more, on my reason for selecting story number one for that position. ☐ Check here.

FUTURE WAR TANK

By HENRY JULIAN

On our back cover this month we present the artist's conception of the war tank of tomorrow, as based upon scientific principles, and possible modern developments in mechanized armament and attack units

(Back cover painting by Stanley Ryter)

NOW that the new war has come, with great stress laid on the mechanized unit of warfare, it seems timely that we take a glance at the future science of the war tank.

With such fortifications as the Maginot Line, the Siegfried Line, and the old and dependable trenches, it seems likely that a new form of attack will be developed. Will this new attack be in the form of a monster moving fort that can burst its way through any fortification and then hold it until the arrival of its supporting infantry?

Let us consider what such a tank would be like. First, it would be a huge thing, but would be completely streamlined. There would be no protruding surfaces or angles to catch armor-piercing shells. It would present only curved surfaces that would deflect shells, or cause them to explode harmlessly outside. Its tractors also would be protected, and would not rely entirely upon themselves for locomotion, but on a giant roller which in itself could move the tank, but which would be most used to roll down obstructions and at the same time provide a roadway behind the tank to facilitate the advance of the following infantry.

The armor of this giant would be laminated and many inches thick.

For armament it would carry several heavy guns, but would depend mainly on heavy calibre rapid-firers and on machine guns. From their positions in this tank, a hundred men would enjoy almost impregnable positions with the added advantage of instant mobility.

Flame throwers would be a potent weapon against infantry, gun emplacements, machine-gun nests, etc. It would be virtually impossible for an attack by infantry to succeed in disabling this monster, as was done in the Spanish war; i.e. throwing bottles of gasoline into the tractors.

Gas attacks also could be repelled. The tank could be made air-tight by closing all openings. Air-conditioning of the interior would eliminate chance gassing or suffocation.

Part of the crew would consist of a company of infantry, armed with machine-guns. They would take no part in the battle until the desired position was reached, when they could take over a captured enemy entrenchment and hold it to cover the advance of the main body of infantry, while the giant tank went on still further.

Let us envision an attack on a fortified enemy position by our future war tank. It is early dawn. The signal for the big push comes. This giant lumbers forward at a deceptively rapid speed. It is so huge it seems to move slowly. But in reality, it can cover the ground at speeds of forty and fifty miles per hour. It advances inexorably, crossing no-man's land, crushing down barbed wire entanglements, and finally reaches a fortified knoll where the enemy has successfully held out for a week by reason of a well entrenched machine-gun defense.

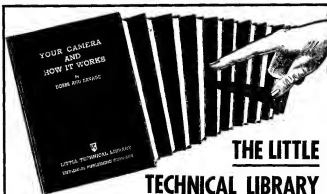
The machine guns don't help now, however. The oncoming juggernaut rolls right over them, smashing down concealments, driving gunners to flight. They don't get far, because a barrage of bullets overtakes them, and waves of intense flame engulf them.

A heavy gun emplacement looms up. It is ready and waiting, and it belches a heavy shell. It strikes high on the rounded front of the big tank, glances, and explodes with a shattering roar. Men at the guns in the tank are stunned by concussion, but they are replaced by others of the large crew instantly. The tank staggers a bit, but continues on, its powerful motors untouched. The big gun goes out of commission as the concrete crushes down upon it under the tremendous weight of the huge roller of the tank.

Behind the underground gun are walled fortifications which tumble before the onslaught of the giant. Soldiers flee in all directions. The defense has been broken. The giant tank halts, prepares to defend its newly captured position, while infantry squads rush from it to take up the vacated positions of the enemy.

In view now, in the dawn, are enemy emplacements which have been causing trouble in the previous week's advance. They are singled out by the tank's heavy guns and silenced. Through the breach in the enemy lines comes the infantry and the mechanized units of cavalry and artillery. Speedy smaller tanks pour into the sector. The enemy, its strongest point dominated by the big tank, is split, and their retreat becomes a rout.

The big tank has broken the back of the defense and its work is now finished. Even though destroyed by concentrated enemy fire, it has served its purpose.



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(See page 145 for details.)

