

Worlds To Come

A Complete Book-Length Scientifiction Novel
by Joseph Samachson writing as Brett Sterling

Captain Future and his valiant aides speed to the rescue of the Sagittarian system — ready to lock in mortal combat with deadly enemies from another dimension!

Chapter 1: Menace in Sagittarius

IN THE light of the blue sun that blazed fiercely down upon the twin planets, Davor and Lagon, the ordinarily stolid face of Ki Illok showed an expression of mingled rage, determination, and hopelessness. His second in command, Rad Magon, was running toward him anxiously.

“The attack has begun!” the lieutenant gasped. “The Sverds are coming!”

“I know.” Ki Illok was a brown man, compact, stocky, clipped of speech, brusque of manner. His dark eyes ran quickly over the atom-pistol at his belt. “We are ready for them, Rad Magon. As ready as we shall ever be.”

His eyes, inspecting defenses, swept over the city which was soon to become a battlefield.

The planet Davor, which was under attack, was a small one, circling along with its twin about a minor sun in the constellation known thousands of light-years away from the Solar System as Sagittarius. Its cities were constructed not of metal, but of plants trained with great skill to grow into place, and were therefore highly inflammable. But Ki Illok’s feeling of hopelessness was due not to this, but to the mystery that surrounded his enemies.

The Sverds were strange, apparently invulnerable creatures, almost certainly non-human. Together with an army of human soldiers, they had already sown destruction far and wide. Under the leadership of a mysterious being known as Gorma Hass, they had conquered planetary system after planetary system.

Was Gorma Hass himself human? Ki Illok did not think so. No man would set out to conquer systems of worlds out of a sheer lust for power. The

project was too vast, and life was too short. No, the purpose that drove Gorma Hass was something more subtle than that, something Ki Illok had racked his brains again and again in a vain effort to guess.

The streaks of light that were flashing silently across the heavens biased up in a dazzling criss-cross pattern that at any other time might have impressed Ki Illok with its beauty. But now he knew that the lights came from the space ships of the Sverds, and that the pattern meant death — death to the world of Davor, to its cities, to its inhabitants, to himself. Lagon, the second of the twin planets, had just risen above the horizon. Rad Magon pointed.

“Ki Illok, you must escape. I have a ship ready. Lagon is as yet unattached. From there we can voyage to some far star where Gorma Hass will not follow.”

Ki Illok shook his head. The blue sun shed a ghastly light upon his brown face.

“I intend to fight, not run away,” he answered bitterly.

ALREADY the plant buildings in the distance were bursting into flame. But now answering flashes of light came from the ground. And far overhead, some of the attacking ships, hit by the return volleys, were disintegrating.

The ships opened and spewed out large metal spheres, which began to fill the skies. These globes drifted down slowly, unaffected by the fierce rays which the defenders turned against them. Only when they hit the ground did they burst open, scattering deadly fragments of metal, and men poured out from them.

There was no need for Ki Illok to bark out last-minute orders, for his men already knew what to do. He himself had his atom-pistol out. He fired whenever he saw anything that might possibly be a target, shooting rapidly but accurately. It gave him a grim satisfaction to know that the attackers were paying a heavy toll.

Then from Rad Magon there came a sudden despairing cry. “The Sverds! The Sverds!”

Ki Illok turned quickly. A couple of hundred yards away from him two gray metal monsters were striding along remorselessly. They walked upright like men on two legs, but they were beyond the height of any giants of whom he had ever heard. Over ten feet from toe to crown, they had stolid animal

faces apparently set upon the tops of their bodies without intervening necks. They walked through the flames, as unaffected by the heat as by the rays that were leveled upon them from every side.

A metal sphere drifted down and exploded near one of the Sverds. Ki Illok stared in excitement as the fragments shot through the mysterious creature's body without obstruction. Now, he thought, he knew the secret of their invulnerability.

"They're ghosts!" he cried. "Three-dimensional images! They can do no harm!"

He saw one of his own soldiers rush past the Sverd, to shoot at a human enemy upon whom his atom-pistol might have some effect. Then, as Ki Illok stared in horror, the Sverd raised an arm, pointed a metal rod — and the soldier of Ki Illok disappeared in a burst of vapor.

"So they're not images!" murmured Ki Illok dazedly. "They can kill!"

Then he saw a dark shadow forming on the ground. Its edges took shape and outlined a man. Ki Illok realized that facing him at a distance of a few hundred yards was a figure that might have been his own. Compact, stocky, brown of face, there was nothing frightening about it except the manner of its appearance.

"Soldiers of Davor, I am Gorma Hass!" cried the figure.

Ki Illok's teeth clenched. So Gorma Hass was human after all! He leveled his atom-pistol, pressed the trigger — and saw in despair that Gorma Hass, like the Sverd, was unaffected.

"Surrender and you will be well treated!" cried Gorma Hass. "If you fight on, only death awaits you. My human soldiers are vulnerable, but the Sverds are not. It is useless to struggle against them. Surrender to save yourselves!"

Already men were throwing down their arms.

"The cowards!" muttered Ki Illok bitterly.

"It is hopeless, Ki Illok," said Rad Magon at his side.

"Perhaps it is," he replied fiercely, "but I will not desert my men. I will die with them."

But as he rushed forward, a shower of metal fragments spattered through the air from an exploding sphere, and Ki Illok fell.

Rad Magon picked up the unconscious body, ran for the waiting space ship. It was the work of a few seconds to deposit Ki Illok inside, and blast off. He was afraid he would be seen by Gorma Hass, but by now the smoke

was so thick that during the few moments of danger it shielded him well. He could hear Gorma Hass speaking again, "Soldiers of Davor, this is your last chance to surrender!" Then he was beyond Davor's atmosphere, streaking for Lagon. He would pause there briefly, then drive on.

He looked back fearfully. He was unpursued.

KI ILLOK awakened to stare up at a sun that was red, not blue. He felt weak, but still he had sufficient strength to stand up. He stared around him.

In addition to Rad Magon, there were three men watching him. One was a giant over seven feet in height, with a brilliant crimson skin and stiff black hair. He wore a garment of black leather secured by a scarlet belt. The second was small, withered, blue-skinned and completely hairless, with the bulging skull of a man of intellect, and colorless, faded eyes. The third, also blue-skinned, was slightly taller, also hairless, but obviously younger and more vigorous.

"Hol Jor!" exclaimed Ki Illok. "And Ber Del! By the gods of space, where am I?"

"This is Anfren, my home planet," replied Hol Jor, the red giant. "The sun is Antares."

"How did I get here?"

"Rad Magon managed to bring you. He took you first to Lagon, where your life was despaired of. Then he had you put in a sound hypnotic sleep and brought here to our doctors. You owe him your life. Ber Del came here from Vega much as you have done, to escape Gorma Hass and his Sverds. The young man beside him is Mar Del, his son."

Ki Illok nodded, held up his hand in a curt gesture of greeting. Then his face darkened.

"What now?" he demanded bitterly. "Where do we run next?"

Hol Jor's broad crimson features became thoughtful. "You are asking a difficult question, Ki Illok. When the time comes for Gorma Hass to attack us, we shall fight as bravely and as desperately as you have done, but we too have no hope of winning. And soon there will be no place to which we can escape. We shall have the choice of dying or submitting to Gorma Hass."

"I have made my choice. I will never submit."

"Nor I," cried Mar Del. "You old men give up too easily. Gorma Hass is not unconquerable. After all, he is only a Vegan, like myself."

Hol Jor's crimson eyebrows went up at the words, "old men."

"If I had trusted my eyes, I should have called him a Sagittarian," commented Ki Illok impatiently. "But I believe now that this is only an appearance he assumes. I am convinced that he is not human at all."

"Aye, you are right," agreed Ber Del. "And seeing that he is not human, he can have no human objective in mind. I feel that he will not stop at the conquest of a few star systems. He intends to continue on to every world where human-type beings live."

"Why?" challenged his son.

"That I cannot tell," admitted Ber Del, greatly troubled, "But the danger is great. He possesses a science which we cannot equal."

Burly Hol Jor nodded, "That is true. And there is only one way to conquer him — oppose him with a science greater than his own."

Mar Del laughed. "That is easy enough to say. But where shall we find such a science?"

"No trouble at all," interrupted Ber Del. "By the green devils of Antares, I think I know what Hol Jor has in mind!"

Ki Illok, too, knew what Hol Jor meant. "Our knowledge is like that of children compared to his," he said slowly. "But he and his companions are only four in number. Gorma Hass possesses countless armies."

"By the names of all the star-gods," burst out the mystified Mar Del. "What are you talking about?"

"We are talking of a man of a distant system called Captain Future, and of his companions," explained Hol Jor. He turned to Ki Illok, "The strength of Gorma Hass lies not in his armies of conquered races, but in himself and his Sverds. If any one can learn how to conquer him, Future can."

"We understand too little about Gorma Hass," pointed out Ber Del. "That has been our chief difficulty. It is not enough to realize that he is not human. To aid us in our fight, we need the resources of the vast science which Captain Future has at his disposal."

HOL JOR nodded. But Ki Illok hid one final objection.

"He is too far away. Even with the aid of the powerful vibration drive he devised, it would take many quals before we could reach him. And by the time we returned, it would be too late."

"No, there is time," said Ber Del. "We are not the greatest scientists in

the universe, we Vegans, but we do make advances now and then. Ki Illok, have you seen the ship by which I arrived here?"

Ki Illok shook his head. Ber Del led him to the side of the room. Here he pressed a button, and the wall became transparent. Ki Illok looked out and saw a cylindrical ship resting quietly on the ground.

He shrugged, "It is an ordinary space vessel."

"Look more closely, Ki Illok."

"The outline of the hull seems vague."

"Ah, now you are more observant. The ship is equipped for dimensional travel. Imagine yourself in a two-dimensional world, Ki Illok, a world like a sheet of paper. You are at one corner of the world, Captain Future at the other. You are a universe apart. But now some one bends the paper, brings the two corners close together.

"You are still far apart so long as you can travel only on the paper. But what if you could leap from one corner to the other, through another dimension?"

"The distance would be trifling," admitted Ki Illok.

"The distance between us and Captain Future is trifling, provided we can travel outside of ordinary three-dimensional space. And the ship you see is equipped to make that very journey."

Hol Jor growled, "You are not telling him everything, Ber Del. The trip is dangerous. Space in the other dimensions is almost uncharted, practically unchartable. We can land in Captain Future's solar system, but we cannot choose the spot at which we desire to land. And once there, we shall have to finish the journey in the ordinary way."

Mar Del interrupted impatiently, "Enough of talking. The trip can be made; let us make it. My father must remain behind, to care for his people. I volunteer to pilot the ship."

"I," answered Hol Jor, "will be the pilot. But I accept you as a member of the crew."

They glanced at Ki Illok. "Let us start," he growled.

Chapter 2: Danger from the Sun

A MAN'S hearty laugh rang out, audible only to his companions across the savage lunar landscape, as the massive metal body of a great robot flew through airless space to land on his bulbous metal head. The robot sat up, then scrambled to his feet, a furious expression in his bright photo-electric eyes.

"By Jupiter, that animal can't do that to me!" boomed his deep voice. "Let me at him again."

"It's useless, Grag," laughed the man, "The day will never come when you can ride a wild Plutonian slug-horse."

Curtis Newton, the tall young Earthman who was famous throughout the solar system as Captain Future, grinned in anticipation behind his glassite helmet as the robot once more approached the slug-horse. In the wild forbidding landscape, lighted by the green radiance that came from Earth, he looked hardly less weird a figure than the robot.

Tail, lithe, and broad-shouldered, his mop of tousled red hair, and his handsome space-tanned face with its clear, keen gray eyes were visible through the glassite. An audiophone of short radius enabled him to communicate with his comrades, enabled Grag to hear his laughter. But to a stranger there would have been no sound, for the surface of the moon was airless, and the walls of the crater Tycho never knew an echo.

The Plutonian animal, about ten feet in length and four feet high at the shoulders, resembled a giant slug as it motionlessly awaited its angry would-be rider. Its legs were so short as to be practically invisible, but for all that it could cover ground like the flick of a whip once it was aroused. Grag approached it cautiously, leaped clumsily upon its back, and clamped his legs about the thick body. At once the slug-horse began to vibrate.

The outlines of its body, lashing back and forth violently, began to blur as Captain Future stared at it. A low humming sound testified to the speed of the back-and-forth motion. Grag, at first firmly ensconced in his seat, began slowly to vibrate also. Greater and greater became the amplitude of his vibration, until suddenly the animal made a gigantic effort, its whole body heaving in one vast convulsion, and the robot flew over its head again.

This time Grag's discomfiture had another witness. A lithe and pale-skinned man had stepped up from the flight of steps that led to an air-lock entrance of the underground Moon-home. Human as Otho's appearance was, he was actually only a synthetic man, an android. His body had been

constructed of artificial tissues.

This was a sore point with him, for he hated to be reminded that he had been born in a series of test tubes. His head was hairless, the skin pure white, with neither brows nor lashes. Slanted green eyes sparkled with reckless deviltry. Otho was the swiftest and most agile creature in the system, and often he needed all his speed and agility to escape from the trouble he loved to stir up.

“Good riddance to that pile of useless scrap metal!” he jeered. “Look, Chief, I’ll show you how a slug-horse should be ridden.”

An agile bound took him to the slug-horse’s back. The animal began to vibrate as before, but this time to no avail. No matter how rapid and violent, the motion, the lithe android had no difficulty in keeping his seat. Finally he dismounted in triumph.

“You two make too much of a fuss about nothing,” grinned Curt Newton. “Let *me* show you how to handle the creature.”

“Held on, Chief,” yelled Grag. “He’s dangerous!”

BUT Curt Newton was already upon the beast. To the amazement of both Otho and Grag, the slug-horse did not vibrate at all. He raced forward over the rocky surface at Curt’s bidding, then turned obediently around and slithered back.

“Holy sun-imps!” gasped Otho. “Why, you might be a cowboy from Pluto itself! How did you do it?”

“It’s easy enough when you know how. This little gadget at my belt contains a vibration ray of the same frequency as his own. Slug-horses find such rays very soothing. It’s impossible to control them by sheer strength alone.”

“Is it?” growled Grag. “Throw off your ray, Chief. Let me try one more time!”

Once more he leaped upon the Plutonian beast, this time with more determination than ever. The slug-horse’s vibrations increased in violence until the two onlookers thought that even Grag’s metal body would be shaken to pieces, but still he held on. The animal twisted, squirmed, went into convulsions.

“There!” panted Grag. “He can’t throw me!”

With a suddenness that startled every one, the slug-horse collapsed.

When the astonished Grag dismounted, it presented a disheartening appearance. It was as flat and squashed as if a mountain had fallen upon it.

Grag shook his head in bewilderment. "I don't understand it. Chief. What happened?"

"Your weight was too much for it," taunted Otho. "A slug-horse is built to carry a rider, not a perambulating junk-yard!"

"Go back to the test tubes where you were born," replied Grag majestically. "It didn't throw me, did it?"

"It didn't," agreed Curt Newton. "But you threw it, and that's almost as bad. It'll take a couple of days before that slug-horse is back in shape to be ridden again."

"Curt!" called a pleasant, woman's voice.

Out of the Moon-home had emerged a dark pretty girl, Joan Randall, one of the shrewdest and most courageous investigators of the Planet Patrol. Floating a few feet off the ground alongside her came the weirdest of all the Futuremen, Simon Wright.

Simon had once been a brilliant, aging scientist on Earth. When he was on the point of death, Curt Newton's father had surgically removed the living brain and installed it in a special serum-case of transparent metal.

The case contained the serum and pumps and purifiers that kept the brain alive. In front were Simon's glass lens-eyes, mounted on flexible stalks, and the aperture of his mechanical speech-apparatus. From his case, the Brain could project magnetic traction beams, by means of which he was enabled to wield tools or instruments, or glide swiftly through space.

Simon Wright rarely showed emotion. Ordinarily absorbed entirely in scientific research, his icy mentality was little affected by the disturbances that upset ordinary mortals. Only one thing could arouse him — danger to his ward and pupil, Curt Newton.

THE story of Curt's birth and boyhood was the saga of the Brain's wisdom. A generation before, Curt's parents had fled to the Moon to protect their scientific discoveries from an unscrupulous man named Victor Corvo. Together with Simon Wright, they had built their combination laboratory and home under Tycho.

Here their experiments had created Grag, the robot, and Otho, the android. And here, soon after Curt Newton's birth, Corvo had killed his

parents, to be killed in turn by the avenging Brain, robot, and android.

The three unhuman beings had reared and educated young Curt Newton. Their combined instruction had made him the most skillful planeteer in space and the System's greatest scientist. For some time, Curt had devoted his immense abilities to the eradication of crime from the System. In that war against the enemies of society, he had come to be known as Captain Future.

The Brain's strange box form now glided toward him.

"Lad, you've done it!" he called, "That last suggestion of yours for using a borate flux did the trick!"

He held in one of his tractor beams a small, many-faceted, transparent disk that glittered like crystal. Actually it was the new metallic alloy upon which he had been working.

Joan added, "From now on, Curt, we'll always be able to keep in touch with each other. Simon has made a metal crystal for each of us. We'll always have to keep them upon us. They'll project such thoughts as we wish farther than any audiophone will project sound vibrations."

"But they must be used with care," cautioned the Brain. "The crystals will wear out in time, and they are difficult to reproduce. Their use must be reserved for emergencies."

"We still have the problem of permanence to solve," agreed Curt. "Meanwhile, Simon, the crystals represent a definite advance in thought projection, I don't think there's any limit to the distance at which they will operate."

A grizzled man in the black uniform of the Planet Police came running up the steps from the Moon-home with a spryness that belied his age. This was the veteran marshal, Ezra Gurney. He and Joan, temporarily off duty, were visiting the Futuremen for a well-earned vacation. The marshal's face was eager and excited.

"Curt, there's a call for you from the Planet Patrol! There's trouble within Mercury's orbit!"

Curt's eyes lit up. "Good! The way I feel now, I'd be interested even in a couple of space-ship thieves."

The old marshal shook his head. "These aren't thieves. Curt. A strange shimmering craft has appeared out of nowhere, about a third of the distance from the sun to Mercury. It appears to be caught in the sun's gravitational pull. And it hasn't got the power to get out."

“There’s plenty of time,” said Otho. “The sun’s pull will take time to act.”

“Not as much as you think,” returned the marshal grimly. “The craft was driving ahead at its full speed when it appeared.”

Curt’s face paled. “Then we’ll have to move fast. Quick, Otho, the *Comet*!”

The android was already darting into a passage that led through the solid lunar rock to a roomy chamber. This was the hangar of a small space ship of teardrop design — the *Comet*, super-swift vessel of the Futuremen.

Otho slid behind the controls. Joan Randall was already in the ship. The others joined her quickly. Overhead, doors opened automatically, and the powerful craft streaked up into the star-studded heavens.

A few moments later, Marshal Ezra Gurney, his ears glued to the audio-phone, looked up in alarm.

“I’ve just had a report on the speed of that strange ship!” he announced. “Curt, it’s going faster than the fastest model space cruiser in the System! It’s going faster than we are!”

“We’ll catch it,” said Curt Newton grimly.

Ezra Gurney shook his head slowly. “I’m sorry, Curt, we’re too late. That ship is doomed!”

Chapter 3: Visitors from Space

AS THEY rushed ahead, Curt Newton listened to the audio reports describing how the strange ship was being drawn nearer and nearer to the sun. Otho was racing the *Comet* toward the trouble spot, but it was clear to Curt that at their present pace they would never reach the ship in time to help.

“How about the vibration-drive, Chief?” demanded Otho.

“I’m afraid it’s our only hope. Any other craft in between?”

“None, Chief.”

The vibration drive was a new principle of space-travel developed by Curt and the Brain. The ordinary rocket-propelled ship derived its motive power from the reactions of particles produced with the aid of giant cyclotrons from atomic explosions in a special chamber, and expelled at high

speed.

Curt and the Brain, making use instead of the reactive push of high-frequency electromagnetic vibrations projected from a drive-ring at the stern of the ship, had been able to build up velocities many times the speed of light. But such velocities, useful as they were in interstellar travel, could not safely be used inside the solar system.

“What’s your plan, lad?” demanded Simon.

“I had intended to cut directly ahead of the ship, slow down to make contact, and then reverse our direction, using the *Comet*’s power to push them away from the sun instead of toward it. But they’re going so fast that I’m afraid there isn’t time.”

“No, Curt, there isn’t. We won’t be able to accelerate to the speed we need to overtake them, and then reverse.”

Curt’s eyes suddenly lit up. “But we *have* got time to cut between that ship and the sun!”

“What’s the idea, Chief?” exclaimed Otho. “There’s no sense in our getting burnt up, too!”

“We’re probably better insulated than they are, so we’ll be able without too much danger to ourselves to shield the other ship from the fiercest heat. My idea is to use our side-rockets to push them away from the sun. In that way, we’ll get the ship to swing through a very eccentric elliptical orbit.

“And if we succeed in doing that, the faster they’re plunging at the sun right now, the better. The high velocity will take them far past the sun, and we’ll be able to give them the extra push that will carry them beyond Mercury’s orbit to safety.”

“Then here goes the vibration-drive, Chief. I’m putting on the stasis projector to protect our bodies from the acceleration.”

The *Comet* leaped forward in space. Despite the protecting stasis of force Curt, like the others, suddenly felt the grip of the terrific acceleration. It threw him against a wall, held him there, appeared to be flattening him out. But the distance between the *Comet* and the endangered craft was quickly decreasing. In a couple of hours they could see it with the aid of the space-visor screen, a tiny black dot in space, silhouetted against the blazing sun.

Otho cut off the vibration drive, began to decelerate. Even with their speed decreasing, they were rapidly eating up the remaining distance that separated them from the other ship. Otho skillfully cut in to one side of the

stranger, and now they raced along side by side.

CURT threw a lever, and the side-rockets leaped into activity with a roar. The other ship, forcefully repelled, widened the gap between them.

“Holy sun-imps!” cried Otho “They’re pushing us the other way, into the sun!”

“Action equals reaction,” rasped the Brain. “If we push in one direction, we get pushed in the opposite direction. It’s an old enough law of physics for you to have learned it, Otho. We’ll have to use our rockets on the sun side to close the distance.”

They drew close again, blasted the rockets once more. Slowly the other craft was being pushed out of the straight line of its fall toward the sun. Its course was now faintly elliptical.

“This is hot work,” grumbled Otho. “We may be insulated, but our insulation isn’t perfect.”

The sun was looming ahead, only two million miles away. The inside of the *Comet* began to resemble an oven. Again and again the rockets blasted at the other ship, driving it further and further out of its former straight-line course.

Otho, speechless now in the intense heat, stuck doggedly to the controls. The old marshal, Ezra Gurney, was gasping for breath, and Joan was pale. Only Grag didn’t mind the terrific temperature. To his special metal body a few hundred degrees more or less meant little.

Curt Newton noted grimly that they were winning. The two ships raced past the sun together, with less than a half million miles to spare. The flaming corona seemed to reach out at them, and Curt could hear the creaking of the *Comet* as some of the stellite plates began to buckle under the intense strain.

Then they were streaking away from the sun just as rapidly as they had approached. The heat grew less intolerable, and Curt wiped his forehead.

“We made it, Chief,” cried Grag triumphantly, “Now all we’ve got to do is give them a little shove, and we can leave them to themselves.”

“Not yet,” cautioned the Brain, “First we’re going to see who’s in that ship.”

Several hours afterward, when they were safe from the sun’s gravitation, and both ships had reradiated into space some of the excess heat they had absorbed, the two ships swung together, clung with the force of the *Comet*’s

magnetic grapple.

The inner door of the *Comet*'s airlock opened, and Curt Newton stepped into it. "Be careful, lad," warned the Brain. "You don't know who these strangers are."

Curt, his hand on a proton pistol, nodded. The inner door of the airlock closed, the outer door swung open. Some one was waiting in the airlock of the strange ship.

Curt Newton raised his proton pistol, then uttered a cry of surprise. "Hol Jor!"

BACK in the lunar home once more, the giant robot labored on the repairs needed for the *Comet*'s hull while Curt Newton and the Brain considered what the far-traveled star-captains had told them.

"Dimensional travel," admitted the Brain, "is a great advance. But it would be more valuable if you could reach your destination exactly."

"We came closer than we had expected," pointed out Mar Del.

"Too close for comfort," agreed Hol Jor. "We emerged from the other dimension to find ourselves going full speed directly toward your sun."

"Let us forget past dangers," said Ki Illok impatiently, "Our reason for coming here was to ask for help with regard to Gorma Hass and his Sverds."

Curt Newton nodded. "So no one understands his origin, or the nature of the strange creatures?" he asked.

"No one," repeated Hol Jor. His eyes wandered about the laboratory, taking in the wonders of this strange place that so few men had ever had the opportunity to see. Enormous generators, transformers, synthesizers, and atomic furnaces were near the walls. Some of them were instruments such as Hol Jor had never before encountered.

Mar Del and Ki Illok, just as curious as the Antarean, had been staring unashamedly. But Ki Illok, who was far from being a scientist, was most closely interested in the question Curt had just asked.

"Who or what Gorma Hass is, no one knows," he stated emphatically. "As for the Sverds, they are not human, they are invulnerable to all ordinary weapons, and they possess enormous strength, Grag is a weakling compared to them."

Grag looked up from his work. "Is that so?" he bristled. "Let me get at them, Chief, and I'll show these fellows what I can do. Watch this."

He lifted one of the warped metal plates that had come from the *Comet's* hull, bent it in his metal hands.

"Showing off again," jeered Otho. "Now, how about showing us how you can ride a Plutonian slug-horse?"

"Never mind that," ordered Curt Newton. He turned to the Brain.

"Simon, here is a problem that will challenge all our skill and ingenuity. I am in favor of undertaking it."

"Aye, lad, especially if Hol Jor is right in thinking that Gorma Hass expects eventually to extend his operations to other star systems."

"Chief," put in Otho, "we can have a dimensional drive built into the *Comet* in a few days. Why not have that weak-brained, strong-armed junk-pile" — he indicated Grag — "start work at once?"

"Why, you misguided son-of-an-inner-tube —" roared Grag.

"Silence, you two. We'll start work on the dimension-drive at once."

Curt faced the girl. "And for once, Joan, you'll be able to come along."

"I'd love to —" she began, when Marshal Ezra Gurney, who had been at the long-distance audiophone, entered the laboratory.

"Sorry, Joan," he apologized. "You and I have to get going after a couple of porite thieves. The government's supply works on Venus has been blasted open, and a large quantity of the drug stolen."

The eager look faded from Joan's face, to give way to an expression of disappointment.

"This always happens whenever you get started on something that looks interesting, Curt," she sighed. "Well, at any rate. I'll be able to keep in touch with you for a while with that metal crystal Simon gave me."

The Brain was already in motion, gliding toward the craft they had rescued, anxious to examine the dimension-traveling device. He was in a deep study of its mysteries while Curt kissed Joan farewell, and saw her and the marshal take off in a Patrol ship.

Chapter 4: Through the Dimensions

OTHO'S eager, green eyes looked a question, "Ready, Chief?"

Curt glanced through the visi-plates and nodded. The Futuremen were

driving outward from the sun in the direction of Mars, away from heavy traffic, using the ordinary rocket-propulsion method. On the floor of the *Comet*, Eek, a moon-pup, and Oog, a meteor-mimic, pets of Grag and Otho respectively, rested quietly. The moon-pup was a small bearlike creature, the meteor-mimic a fat, white and doughy little animal. Both the robot and the android would have been unhappy without their pets.

A few thousand feet ahead of them, Hol Jor was cruising slowly along. His ship had just showed a green signal light. Then it seemed to waver and blur in front of Curt's eyes. Suddenly it disappeared from sight. It had started on its journey through the dimensions. It was time for the *Comet* to follow.

Otho pressed a stud, and the Universe began to fade out. The stars dimmed, then disappeared entirely. The Futuremen were now out of their normal three-dimensional world.

It was a world of ghosts and shadows that they had entered. Far ahead of them they caught sight of Hol Jor's ship. Then quite unexpectedly that vanished, only to reappear a few moments later, strangely distorted, as if seen in a concave mirror.

"What's going on? demanded Otho. "How is it that now we see them, now we don't? And why are they twisted?"

"Light waves are subject to curious laws in this world," answered Curt. "They no longer travel in the straight lines with which we are familiar. Keep the course Hol Jor charted for us, Otho, even though it looks twisted. We're liable to lose them entirely before the trip is finished."

Out of the blackness where nothing had been visible a moment before, a giant green sun, cubical in shape, but with rounded edges, suddenly loomed.

"Watch where you're taking us, you overgrown mess of colloids," bellowed Grag.

Otho was tugging frantically at the controls. But the Brain's voice grated calmly:

"No cause for excitement. That sun doesn't even exist in this world."

"Maybe it doesn't exist, but we're going to hit it right now!" yelled Otho.

Curt laughed, "We're not going to come near it. It's only a projected shadow, and we're going right through it."

Otho stopped fighting the controls, They plunged straight ahead for the green giant, dived through its surface. It gave Curt a weird feeling to be traveling inside that blaze of dazzling light.

All the visi-plates had to be blacked out, and Otho had to steer by instruments alone. There was no sensation of unusual heat.

AND then, suddenly, the green sun disappeared, and they were speeding through the blackness again, with nothing but the ghosts of unfamiliar stars lighting their way.

“By the demons of space!” rumbled Grag. “You never know where you’re at in this crazy world!”

“You can trust your pilot,” boasted Otho. “I’m keeping to the course laid down for me. Look, Chief, here’s another of those fake suns, a round yellow one this time, way in the distance. Let’s see how it feels to go through this one.”

“Veer left, Otho!” ordered Curt sharply, “That’s a real sun in this world, not a projection! Left, quick!”

Otho, a surprised look on his plastic white features, obeyed with the unmatched speed his muscles were capable of. The *Comet* roared to the left as the yellow sun grew larger. Eventually they drove past with only a few million miles to spare.

“But how can you tell?” protested Otho. “The green one looked just as real as this did!”

“Keep your eyes on the thermocouples,” replied Curt. “If there’s a rise in temperature, the sun is real.”

Grag laughed, emitting a deep booming noise like the rumble of an earthquake heard in a cave. “So we can trust our pilot, can we? Leave it to him, and we’ll end up as nothing but a heap of cinders.”

The android, abashed, lapsed into silence. Queer images appeared and disappeared from time to time. Once they passed close by a lifeless planet, with the ruins of a long-dead civilization still visible upon it. And once they passed the shadow of a planet that was still full of silent and ghostly life.

As they neared the end of their journey, Curt declared tensely, “It’s in getting back to our own three-dimensional world that the real danger lies. Be careful, Otho.”

Otho muttered, “Sure, Chief,” his eyes on the instruments. His over-confidence was gone, and when Otho was on his mettle, he was the best pilot Curt had ever encountered, in the System or out of it.

“Now, Otho,” Curt exclaimed, and the android pressed the stud that

would take them back to their own three-dimensional world.

The ghost stars faded, the stars of their own Universe blazed back into view again. In this region of space they formed queer, unfamiliar constellations, but it was a relief to know that the light that came from them followed familiar laws.

“We made it, Chief!” cried Otho exuberantly. “And we’re in no danger of a smash-up from any stray sun.”

“Yes, but we’ve still got a tricky journey to make. Hol Jor’s ship has gone out of sight, as we feared might happen. Now Simon and I have to calculate our course to Hol Jor’s home planet, Anfren. Straight ahead, Otho, until I order you to change our course.”

“Shall I use the vibration-drive?”

“No, the rockets will do. It’s a tricky journey, but not a long one. And if everything goes smoothly I think we can count on our landing on Anfren within two days.”

Curt was to think of that remark later, after disaster had struck.

IT WAS only a few hours afterward that Otho, his face worried, turned momentarily from the controls.

“Something’s wrong, Chief, One of the rear rockets is missing.”

“The exhaust tube is probably fouled.”

“Want me to climb out and fix it?”

“No, you stay at the controls, Otho. I need a little exercise. I’ll handle the job.”

It was but the work of a moment for Curt to get into his space suit, and clamber with magnetic traction shoes out through an air-lock onto the hull of the *Comet*. The ship was moving along so steadily that he was hardly conscious of any motion. The whole celestial bowl of space was ablaze with brilliant stars, arranged in strange new patterns. Curt gazed at them, for a moment, then got to work. He found the fouled rocket tube quickly. A short examination convinced him that it could be cleaned in half an hour.

He set to work, glad of the chance to stretch his limbs.

Meanwhile, inside the *Comet*, Grag had become bored with his inactivity. He picked up one of the pets from the floor and began to fondle it with his huge metal hands.

No ordinary animal would have enjoyed those heavy-handed caresses,

but Eek, the moon-pup, was no ordinary animal. He was small and gray, and he fed, like Grag himself, on scrap metal. Unlike Grag, however, who used only copper to supply the energy plant inside him, Eek would devour any sort of metal, precious or otherwise. This voracious appetite of his was a continual nuisance, and had more than once got the Futuremen into hot water. As though to compensate for the trouble he caused, he possessed a telepathic sense that had several times come in handy.

Otho glanced at Grag, then looked around for his own pet, the fat little meteor-mimic. But, Oog was apparently nowhere to be found. A half-concealed smile played on Otho's lips, as he devoted himself once more to piloting the *Comet*.

A quarter of an hour later, he remarked casually, "Say, Grag, isn't Eek sort of shrinking a little?"

Grag carefully examined the animal in his arms. "He does look a little smaller," he admitted.

"Too bad, Grag, too bad."

"Why, what's wrong?" asked the alarmed robot.

"Oh, it happens oftener than you think — that a moon-pup stops growing and starts to shrink. It's a sign of premature senility."

"Holy sun-imps!" roared Grag, "I'll have to ask the Chief what can be done about it."

"Nothing, I'm afraid," sighed Otho. "There's no cure known to science. In a little while, Eek will have shrunk away to practically nothing."

At that moment, the moon-pup in Grag's arms squirmed and began to go through a series of amazing contortions, ending up before the robot's startled eyes as a Martian snake. Grag dropped him in disgust.

"That thing isn't Eek at all," he thundered in rage. "It's Oog, your dirty little meteor-mimic!"

Otho chuckled. Oog had the ability of making his protean body flow into an imitation of anything he had seen. This gift of protective mimicry had proved extremely useful to what would otherwise have been a completely helpless animal.

"So you don't know your own pet!" the android taunted.

GRAG bellowed again, and Otho laughed. The next instant the threatening figure of the robot disappeared from view. The lights of the

Comet had gone out.

“Lights!” yelled Otho frantically, “Grag! Simon!”

“I’m floating here to free space!” cried Grag in alarm. “We’ve lost our artificial magnetic and gravitational fields.”

“Easy, boys,” called the Brain. “I think I know where the trouble is.”

Otho waited impatiently. Then there came a shock that whirled the *Comet* part way around.

“What happened?” demanded Grag.

“What happened?” repeated Otho in fury. The lights suddenly went on again, revealing his expression of rage. “While we were floating along crippled, a meteor decided to come down and smack us on the nose. It was all I could do to twist the *Comet* around in time to avoid the full force. And if you’d like to know whose fault it is —”

He pointed dramatically. Eek, the moon-pup, was cowering not far from where the Brain was deftly making repairs. Reading Otho’s emotions telepathically, the animal shrank against the side of the ship.

“Whatever he did, he couldn’t help it!” defended Grag, suspecting the worst. “He was hungry.”

“That’s fine! He chews up a couple of wires and a copper disk on which the life of every one in this ship depends, and all you can say is that the poor thing is hungry. I’ll give him a bellyful —”

Another darting meteor threatened, and this time, with the ship functioning properly, Otho had no difficulty in avoiding it. His anger died down gradually, until only an occasional grumble came from him.

With the ship fixed, the Brain lost interest in the dispute, and was now absorbed in brooding over a scientific problem. But half an hour later, he came out of his period of abstraction.

“Where is Curtis?” he demanded.

“He should be here by now.” replied Grag uneasily.

“Take over, Grag,” ordered the android. “I’ll climb out and see how he’s getting along.”

He clambered out through the airlock. In a moment he had returned, his white face tense. “The Chief is gone!” he blurted.

“You’ve looked all over the ship?”

Otho nodded, “That collision must have knocked him loose.”

The three unhuman beings stared at each other tragically.

“Turn back,” ordered the Brain, his harsh voice betraying a touch of emotion. “We’ll see if we can find him.”

But the Brain knew that there was little hope. Once a man was lost in space, he was lost, for good.

The *Comet* retraced its path. Many hours later, after a weary search, Otho’s eyes met Crag’s, dropped to the floor of the ship.

“Where to now?” asked the android of the Brain.

“We may as well go on to Anfren,” replied the Brain tonelessly.

Otho turned the ship about once more, and they sped on. Simon Wright, his usually emotionless mind deeply stirred, gazed silently off into the stellar distances.

Captain Future, the brilliant scientist, the man he had raised from childhood, the pupil he had regarded as a son, was lost to him. Simon felt wearily that he himself had nothing to live for now.

Chapter 5: Lost in Space

WITH the loss of magnetic power, Curt Newton’s shoes no longer held him to the *Comet*. A moment later came the collision with the meteor, throwing him into space, and dazing him at the same time. It was only a few seconds before he recovered. When he did, he could see far in the distance a tiny spark of light becoming smaller, disappearing before his eyes. It was the *Comet*! He had sighted the approaching meteor, had realized that only Otho’s skill at the controls prevented the disabled ship from making a collision that was utterly disastrous. He wondered what had happened to the ship’s magnetic and gravitational fields, but meanwhile he had to let the Futuremen know of his plight.

He spoke sharply, “Otho! Turn back! I’m out here in space!”

There was no reply, and he realized at once that the limited-range audio-phone built into his helmet was out of order, its mechanism damaged by the same collision which had shocked him. There was the telepathic crystal on his wrist, but only Joan had the mate to that. He was cut off from his companions on the ship.

“This is it,” thought Curt. “This is the end.”

The thought chilled him, but panic was foreign to his nature. His mind remained cool and powerful, seeking for a way out.

He knew that he was traveling at terrific speed, but there were no objects close by which he could use as landmarks, and at first he seemed to be standing still. He twisted about, regarding the unfamiliar heavens more closely than he had done at first.

Stars blazed in every direction, unwinking pinpoints of light that ranged from red and yellow through green and blue. And off to one side his eye caught a faint blue crescent of light. Curt's heart leaped. It was a planet, shining by the light of a small blue star!

"It's fairly big," muttered Curt, "so it must be close. I'm probably falling there right now. Perhaps a day of this free flight through space, and I'll make the landing."

What then? Curt knew from his previous visit here that many of the planets in this section of the universe had breathable atmospheres. The chances were that this planet had one as well. But he would do well to make sure in advance.

He removed from his belt a small portable spectroscope, focused it slowly on the crescent of blue. The blue light filtered through the tiny jewel-like prisms, broke up into its constituent monochromatic beams. Curt's eager eyes saw faint but characteristic dark lines. Nitrogen, carbon dioxide and hydrogen were present. Most important of all, there was a high concentration of oxygen. The atmosphere was breathable.

Within his space suit, Curt was conscious of his own sigh of relief. If he could only reach the planet safely the friction of the atmosphere would help slow his fall. But the heat that would be generated, like the heat generated by a meteor entering the atmosphere of Earth, would be enough to burn him to a crisp. He would have to figure out some way to slow down first by his own efforts. Well, that wouldn't be as hard as it looked. He had his proton pistol by his side, fully charged. And once more, he had the third law of motion of his namesake, Sir Isaac Newton, working for him.

ACTION, had proclaimed the ancient Newton, equalled reaction. The pistol projected a stream of protons that was deadly to any human target. But at the same time, the proton stream, like the ancient metal cartridges that had once been used, kicked back with a terrific recoil. Ordinarily, the recoil was

taken up by the mechanism of the gun so that it might not harm the man who was using it. But a slight adjustment would take care of that.

When he came close to the planet, he'd aim a powerful proton stream at its surface. The effect would be exactly like that in the rocket tubes of the *Comet*. Here too the recoil of a stream of disintegrated atoms propelled the ship. The proton stream would propel him away from the planet — in other words, slow him down sufficiently so that he could enter the atmosphere without harm.

Perhaps he was imagining it, but already the crescent seemed larger. He must be falling fast.

In the distance he caught sight of a faint flash of light. A tiny object was coming into view. It grew larger until he could see its strange teardrop shape, a shape he himself had designed. It was the *Comet*, come back to look for him!

“Otho!” he called. “Otho!”

But there was no mistake about the audiophone being out of order. He watched with growing tenseness as the *Comet* cruised about aimlessly. If there was any way of letting them know his whereabouts — but there was none. The *Comet* turned in the wrong direction and disappeared once more. His chance of rescue was gone.

But now the crescent of the planet toward which he was falling was definitely larger, about the size of the Earth as seen from the moon. A few more hours, and he would know his fate.

Several huge dim shapes swam between him and the crescent, blurring its clear outline. The shapes passed, then swam back again. Cart Newton's eyes narrowed.

“They're alive!” he whispered to himself. “Some sort of space creatures.”

There were no more than half a dozen of them, all vague and amorphous in outline, and semi-transparent in body, but Curt had a feeling of uneasiness. The Solar System was free of creatures that lived in the barren void of space, but out here, far from the worlds he knew, their existence was not entirely unexpected.

“Hol Jor and Ki Illok once talked of encountering them,” he recalled. “They said the creatures were intelligent. I don't see what harm they can do.”

He might possibly avoid them by using the propulsive power of his proton pistol, but its energy was too precious to waste. He allowed himself to

continue falling. And then, so suddenly that he had no time to prevent it, a blurry shape seemed to enclose him. He was *inside* one of the amorphous creatures!

Whether he had torn into its body, or something like a mouth had opened to swallow him, Curt did not know. All he could be sure of was that he was surrounded by a dense gray gas or smoke, in which currents were visibly flowing toward him. And for the first time in his life, Curt had to fight against a feeling of panic.

A powerful evil mind seemed to be beating against his own mind, trying to batter down its defenses. Curt was conscious of vague, horrifying impressions, of half-formed thoughts designed to fill him with terror. It was as if he were caught in the meshes of an invisible mental net.

"I mustn't let myself give in," he thought desperately, "I must think of familiar things — of Grag and Otho and Simon, especially of Simon and the things he's taught me. There's nothing terrible in this, I can get out whenever I want to."

BUT the whisperings of fear and defeat continued.

"Those smoke currents — they're trying to digest my space suit!" he realized suddenly. "They're working away at it while this mental force tries to keep me paralyzed. I've got to get out fast. The proton pistol —"

A strange inertia seemed to be overcoming him. It required an agonizing effort for Curt to perform the simple act of drawing his proton pistol. But with the loosing of a proton ray, the mists in front of him began to dissolve. Wisps of smoke floated about him, then disappeared in space. His mind was free, its own master once more. And he was falling once again toward the approaching crescent.

"By all the sun-imps that Grag swears by," he muttered, "that was a close thing. And yet there seemed to be no danger. I hope I don't run into any more of those things before I land."

The surface of the planet was beginning to emerge clearly. Off to one side was a mountain range, stretching across the top of the crescent. The crescent itself was growing in thickness, for he was falling not in a straight line toward the planet's center, but in a spiral. A streak of silver at last came into view, persisted, broadened. It was a large lake.

"The water will break the final fall," thought Curt, "I'm in luck."

Time passed, time which he couldn't reckon. The mountain range at the top of the crescent grew, the lake began to sparkle more brightly. Curt had a slight sensation of warmth. "That must be from friction," he muttered.

He aimed his pistol at the lake, let loose a blast of protons. With the adjustment he had made, the recoil was strong enough almost to take his arm off. He blasted again and again, and the sensation of warmth died away. He was slowing down.

He allowed himself to plunge downward until he could see the tossing of tiny waves on the lake, could see them roll in and break on a vivid green shore. The planet as a whole was no longer visible. All he could view now was an area of a few hundred square miles.

He aimed his proton pistol at the water, slowed his fall even more. But still the waves were rushing up at him with dizzying speed. One final blast — and then the waters were closing over his head.

The shock dazed him for only a second. The space suit had helped cushion it. But now its weight was dragging him down. He allowed himself to sink quietly, conserving his strength. The water of the lake was clear, and he could see the currents apparently streaming up as he sank. Queer creatures that had not the slightest resemblance to fish stared at him with thousands of tiny insect eyes as he passed.

Then the water was black and no longer transparent. He had stopped falling. He tried to move, but his legs were caught, He was stuck in the mud at the bottom of the lake.

His lungs began to hurt, and he realized that the oxygen supply in his space suit was becoming exhausted. He struggled furiously, but again, in vain.

STRANGE lights swarmed around him. The lake-dwelling creatures were coming closer, curious about the unfamiliar being that had invaded their domain. Curt Newton raised his proton pistol again, aimed it at the mud, threw the entire remaining charge into one powerful blast.

This time the recoil was so terrific that the pistol was wrenched out of his hand and disappeared. But at the same time, he was torn loose. With the stream of protons he had created a chemical storm. They had torn into the mud, heated the water to create steam, decomposed the steam into hydrogen and oxygen, disintegrated part of the oxygen itself to lighter gases. Curt

Newton rose toward the surface on a giant bubble of steam, hydrogen, helium, and oxygen.

As he broke the surface, the bubble burst, and he began to sink again. He struggled frantically to free himself from the now useless space suit. The glassite helmet came first. The cold water hit his face with a shock, stimulating him to renewed efforts. Then he tore loose from the rest of the suit. He kicked out furiously and rose to the surface. He took a deep breath, filled his lungs with the oxygen his spectroscope had told him existed here.

The clear, unfamiliar air invigorated him, gave his muscles new strength as he struck out for the shore a mile or two distant. The strange creatures of the lake approached him, then retreated in alarm from his thrashing arms and legs.

The shore was coming closer. But Curt Newton, his body buffeted by one shock after another, was approaching exhaustion. His arms were moving more and more slowly. No longer did they cleave the water as powerfully as they had done at first. Each stroke was weaker, took him only a foot or two along his way.

Only that dogged determination that was an essential part of Captain Future's character prevented him from giving up the apparently hopeless fight, allowing his weary body to sink beneath the waves to the rest it craved. His arms moved slowly, but they did move. When finally he looked up for what he felt was the last time, it was to see the shore only a dozen yards away.

His feet found the bottom. He dragged himself painfully out of the water, collapsed on the curious light-green sand. His mind became a blank.

After a time he could not estimate, he sat up again and looked around. The landscape was of the same curious green color, rocky, bleak, apparently uninhabited. And he was alone.

He had been Captain Future, a man with the most faithful companions alive, a man with every resource of a great science at his fingertips. Now he was only Curt Newton, without weapons, without equipment, with nothing but his bare hands to fall back upon in his struggle against a savage environment.

There was no doubt that the environment was savage. A dozen greenish wolflike beasts, each four feet high at the shoulders, were approaching. They had emerged almost unnoticeably from the green landscape. They had

curious narrow faces, with two eyes set so close together that they almost formed a single large eye, and three nostrils forming a triangle. Their teeth were bared — greenish teeth, few in number, but broad and dangerous looking.

Curt Newton almost laughed aloud as he faced them. There was irony in his encounter with these beasts. He had expected to brave danger at the hands of the mysterious Gorma Hass — the danger of a subtle, civilized, super-scientific enemy. Instead, he was staring at death in a highly primitive form.

The foremost beast snarled and launched himself forward in a mighty leap.

Chapter 6: The Blue Savages

CURT NEWTON did not wait for the animal to reach him. He leaped forward and to one side. For the speed at which he moved, he could thank the wisdom of the Brain, who had always insisted that he keep in good physical condition. He seized the animal's hind legs, used the momentum of the body itself to swing the struggling shape in a furious arc. The head crashed against the ground, spattering it with blue-green blood.

The other beasts were closing in. Curt Newton swung the dead body in front of him like a rapidly moving club. He wounded one beast, which ran off, apparently as much afraid of its companions as of him. He killed a second. And then the rest fled. Dangerous as they appeared, they were after all cowardly and had no stomach for a fight that was so costly to themselves.

Curt looked around him. The prevailing color of the ground, as of the blood of the animals he had killed, was blue or green. That probably indicated copper. But the plants with which he was most familiar could not grow in soil that contained much of that element. These plants that did flourish in copper-containing soil were poisonous to human life.

That meant that he would have a problem finding suitable food.

Nevertheless, Curt Newton was already making plans. Somehow or other, he knew he would solve the problem of obtaining food. And then would come the further problem of getting off this out-of-the-way world, of making contact with the Brain and his other companions, of checkmating the

plans of Gorma Hass.

For a moment, as Curt considered the situation, he was surprised at his own daring. Alone on this bleak planet, with no instruments to aid him, he dared think of creating means of space-travel, of space-communication! But Captain Future had as much mental courage as physical. Starting from nothing, he was certain that he would attain his goal.

A shout interrupted his thoughts. "Blad magr gubdu?"

Curl's eyes glittered as he looked toward the source of the vocal sounds. So this planet was inhabited by human-type beings after all! Half a dozen of them were approaching. They were short in stature, blue in color, and with high, bulging foreheads. So far as he could tell, they were of the same race as Ber Del, the Vegan. But he could see at a glance that they were savages. They were dressed in the skins of animals, and they carried simple weapons that were nothing more than lumps of malachite bound with animal sinews to a wooden club.

Their leader was an old man, his face wrinkled, but still vigorous. Four younger men followed him, and shyly bringing up the rear was a girl, her youthful figure clearly defined by the skins she wore. Despite her blue color, she was pretty by any human standards, decided Curt. There was a look of astonishment on her face as she regarded this tall, stalwart, red-haired stranger.

"Blad magr gubdu?" repeated the old man, pointing.

He seemed to be referring to the color of Curt's hair. In this copper-saturated world, thought Curt, red hair must be as much a novelty as blue hair would have been on Earth. He grinned.

"It's natural," he commented. "I can't take it off at night."

Now the old man was pointing to the dead wolflike beasts. One of the younger men said something, and the leader stared at Curt in growing awe. He pointed to his own weapon, asked another question.

"I haven't got any," returned Curt. "I did it with my bare hands."

THE girl was gazing at him as if fascinated. Curt's eyes accidentally caught hers, held them for a brief second. Her face purpled. And Curt, a feeling of relief sweeping over him, grinned happily.

That was a blush he had seen. Beneath the blue skin that owed its color to copper compounds was red blood, a blood that contained haemoglobin like

Ber Del's and like his own. His own metabolism was essentially the same as that of this strange blue race, and he would have no difficulty eating the same food they ate. His first problem was solved.

Next came the question of grasping the essentials of their language. That, he knew, would take him only a few hours. He had long since been forced to develop a technique for acquiring a rapid grasp of any language constructed according to reasonably familiar principles.

He began to point to different objects, giving the English names for them. It was the girl who got the idea first. She gave him her own name for lake, for water, for a club. Curt began to mimic different actions, and thus to acquire one verb after another. His phenomenal memory, concentrating on the task before him, retained every word, and before many hours had passed, he was speaking hesitantly, but in a way that could be understood.

The girl's name was Varra, the name of the blue race the Vardri. The old leader was Kuru. Almost the first intelligible question the latter asked was:

"Are you from Gorma Hass?"

Curt started. He had never imagined that Gorma Hass would even have heard of this strange planet. He shook his head.

"What do you know of Gorma Hass?" he asked.

There was an expression of awe on the chief's face. "He has appeared here. He is blue, like one of the Vardri."

"And his Sverds?"

"They are neither like the Vardri nor like any other human race." Kuru's face betrayed his fear of the mysterious creatures. "They are invulnerable to all weapons. One of the members of the tribe, a young and strong man, attempted to hit a Sverd with a club. The club passed through the Sverd's body without resistance, and the Sverd was unharmed. But the young man died."

Curt reflected rapidly. He could not imagine that Gorma Hass would have any great use for this minor planet. But perhaps he wanted to use it as a military base. If so, some day the Sverds would return here.

When they did, he must be ready for them. He must start building his scientific equipment as rapidly as possible.

He became aware that one of the savages, a tall, sinewy youth, was staring at him with undisguised hostility. He bent over to whisper to the old chief.

“Lherr claims that you did not kill the beast with your own hands,” said Kuru. “He claims you used magic, evil magic.”

“All the magic I know is good magic,” returned Curt firmly.

Lherr frowned, whispered again to Kuru.

“That savage,” thought Curt, “is going to cause me trouble.”

Meanwhile he had more important things to worry about. He spoke to Varra again, asking one question after another. But all the while she answered him, he was conscious of Lherr’s angry scowl.

Chapter 7: The Brain Becomes a Trojan Horse

FOLLOWING the path Simon Wright had charted, the *Comet* drove steadily toward the planet Anfren. Inside the teardrop-shaped vessel, all was gloom. From the moment Otho and Grag had discovered that Curt Newton was lost, their manner had become quiet and subdued.

The Brain himself spent most of his time brooding over scientific questions, to keep from thinking about Captain Future. It was without the feeling of elation that would otherwise have accompanied their visit to a new world that they prepared to land.

Anfren was a small planet, no larger than their own moon. As the *Comet* circled about it, Otho quickly caught sight of a huge landing field whose description Hol Jor had given them. With a roar of the deceleration rockets, the *Comet* plunged downward, losing speed steadily, and finally coming to a slow and skillful landing that aroused the admiration of the watching Antareans.

It was with a blank look that Hol Jor and the other assembled star-captains greeted him.

“Where is Captain Future?” demanded the big red Antarean.

“Lost in space,” replied the Brain somberly.

“In the trip across the dimensions?”

“Later on.”

The star-captains exchanged glances of bewilderment. “Then your long trip here was in vain!” exclaimed Ber Del.

“It was disastrous,” said the Brain. “Nevertheless, I am going to do what

Curtis would have wished. I intend to make an effort to discover the true nature of Gorma Hass.”

“We have sent spies to learn about him,” declared Ber Del, “but in vain. Either they have been caught, or they have returned with nothing to report.”

“I expect to see Gorma Hass for myself.”

There was an uneasy silence. “What we hoped that you and Captain Future would do,” put in Ki Illok, “was teach us means of combatting the Sverds.”

“You asked for the help of our science,” rasped the Brain impatiently. “It is for us to decide how that science can be most useful. And as your chief enemy is Gorma Hass, and not the Sverds whom he controls, I intend to investigate him first.”

“How?” asked Hol jor.

“By letting myself be captured by his soldiers.”

“You can’t do that, Simon!” gasped Otho. “Why, they’d kill you!”

“My life isn’t so valuable, now that Curtis is gone,” returned the Brain. “Moreover, I think you are unduly pessimistic. I can go to places where no ordinary man can penetrate. If I am seen by the soldiers of Gorma Hass, I will appear to them merely as a piece of machinery.”

“You are right, Simon,” boomed Grag approvingly, “It’s the kind of thing the Chief would have done. Don’t wait for the enemy to come to you! Go boldly into his camp!”

There was a sorrowful expression on Ber Del’s face. “It appears that we have asked you and Captain Future to come to our galaxy merely in order to bring you to your deaths!”

“We Futuremen were always accustomed to taking risks,” asserted Simon. “Where can I arrange to be captured by the men of Gorma Hass?”

IT WAS Ki Illok who answered. “There is an outer planet in this same system of Antares that is expected to be attacked soon by Gorma Hass. There you will be sure to find both his soldiers and his Sverds.”

“Then that is where I must go,” declared the Brain.

“We’ll go with you, Simon,” cried Otho eagerly. “I can disguise myself as a member of a captive race, and Grag — well, nobody would take him for any kind of a human being, anyway!”

“I go alone,” said Simon sternly. “Otho, you and Grag stay here with Hol

Jor. Assist him in every way you can. If I am fortunate, and succeed in my efforts, I shall give you further orders later.”

It was with a curious respect in their eyes that Grag, Otho, and the assembled star-captains stared silently at the determined Brain, who was about to put himself of his own free will into the power of the sinister and mysterious Gorma Hass.

The Brain hated action. He was able to move, and to utilize his traction beams skillfully in the place of hands, but ordinarily he reserved their use for the scientific experiments he loved. He was pleased therefore to find that letting himself be captured was a simple matter.

Left on the planet that Ki Illok had mentioned, he needed to do nothing but wait. Eventually the soldiers of Gorma Hass arrived, and one of them, attracted by the curious-looking contraption that Simon appeared to be, seized him, and stored him away.

During the brief interval of fighting that took place, Simon was able to see with his own lens-eyes the mysterious Sverds, so much feared by the star-captains and all others who had fought against them. He watched them walk through material obstacles, apparently unharmed by weapons of any sort, and blast their enemies with deadly effect.

“They’re animal, not human,” he decided. “And as they’re not images, there can be only one explanation of their ability to move through solid obstacles. The atoms which compose their bodies must be in a different plane of vibration from normal matter. Curtis and I long ago recognized the possibility of matter existing in so peculiar a form, although we never succeeded in creating it. But how is it then that they can reach out and affect matter in the ordinary plane of vibration?”

It was while Simon was pitting his wits against this question that he was discovered as he had hoped to be. It was characteristic of him that while being carried, by the soldier of Gorma Hass, he continued his attempts to puzzle out a solution.

“The answer must lie in the weapons with which Gorma Hass has furnished them,” he decided finally. “These weapons enable them to affect matter in a normal plane of vibration while remaining outside it. Unfortunately, neither Curtis nor I ever knew how this could be done.”

Lying with a miscellaneous mass of machinery in the hold of a space ship that was taking off from the captured planet, Simon continued to ponder the

question, and to make mental calculations. Days passed thus in intense thought, interrupted only by an occasional rest period, for the Brain had no need of ordinary sleep.

When he was finally moved from the ship to a storehouse, the Brain did at last go into action — but even this was action of a special kind, the one kind to which he did not object.

He raised himself by means of his tractor beams and extended the lens-eyes, mounted on flexible stalks. He could see mechanical devices of all kinds, most of them ruined and useless. But here and there were parts he would be able to utilize.

He selected these parts carefully. There were transparent lenses useful for ordinary optical instruments, as well as the magnetic lenses useful for electron beam focusing. Simon began to experiment, testing one lens after another. High up on the walls, he used an old atom-pistol to remove sections of the opaque material, and substituted for them carefully chosen lenses of the optical type.

FROM these lenses several metal wires led to the central group of visor-screens that Simon had constructed.

Simon's own lens-eyes hung on their stalks over the screens. In front of him he soon had pictures of what was going on in this citadel of Gorma Hass. Outside he could see the soldiers of Gorma Hass, with here and there a Sverd, regarded askance even by their human allies.

The next thing for him to construct was a series of audiophones. Simon worked at the apparatus steadily, for no one came to visit the storehouse. At night he cut a larger section out of the walls, and went floating stealthily over the city, to place his receiving instruments in suitable places.

"There," he finally muttered with satisfaction, "Now I can see and hear what is going on."

The city, he decided, had been constructed purely for military purposes by the soldiers of Gorma Hass. There were no civilians to be seen, and all the conversation was of military conquest.

He overheard one quarrel between two soldiers, one of the Vegan type, the other pink-skinned like the men of Fomalhaut. That argument shed a revealing light on the nature of Gorma Hass.

"By the blue star itself," cried the Vegan, "when the fighting is over and

everything is settled, we Vegans will rule the Universe.”

The pink-skinned Fomalhautian laughed. “It is just as well that you swear by a star that our leader despises, Vegan, for there is no truth in what you say. Gorma Hass himself is one of us, and he is not such a fool as to turn over his conquests to the men of that poor system of yours.”

“Gorma Hass from Fomalhaut?” shouted the enraged Vegan. “You lie! I have seen him myself, here on this planet, in his own palace, and he is a Vegan of pure blood!

The Fomalhautian frowned. “No man calls me a liar and lives,” he growled fiercely. “I saw Gorma Hass at the same time you did, and he is from Fomalhaut. For your bad eyesight, Vegan, you will pay — with your life!”

He had his atom-pistol out at the same instant that the Vegan had drawn his. Simon saw the two deadly rays cross in mid-air, watched the two soldiers both fall, their bodies half blasted by the streams of disintegrating particles.

The incident aroused the Brain to considerable speculation. He knew, from what Hol Jor and the other star-captains had told him, that Gorma Hass had the power of appearing to each race as one of themselves. Now he had the further proof of what he had suspected — that Gorma Hass made use of this power to inspire his soldiers, make each one think he had a personal stake in conquest.

HOW was this power achieved? By the projection of a three-dimensional image? By mass hypnotism? Each was possible, but Simon doubted that either method was employed. A three-dimensional image would be convincing only to savages, and mass hypnotism would result in all the spectators at any one time believing they saw the same kind of man. But what if the spectators themselves belonged to different races?

“If it had been mass hypnotism,” murmured Simon, “both the Vegan and the Fomalhautian, staring at Gorma Hass at the same time, would have believed themselves to see the same kind of man. Instead, each believed himself to see a man of his own race. No, Gorma Hass does not employ mass hypnotism.”

But the two soldiers had revealed something else, too, something that for the moment appeared to Simon even more important.

“Gorma Hass has a palace on this very planet,” he thought. “The next thing is to discover where it is. And to prepare for him.”

With these thoughts in mind, Simon during the day remained watching as intently as ever over the visi-screens and audiophones he had constructed. Meanwhile, at night, when he could see and hear little from outside, he worked at fashioning a new instrument.

But he was not fated to remain here long enough to secure the information he wanted. A few days following the lethal quarrel he had overheard, the door of the storehouse suddenly swung open. Simon had barely time to glide noiselessly into a corner before a squad of soldiers entered, carrying more equipment. They halted and stared in stupefaction at the apparatus he had constructed. They had approached by means of a path that was not covered by Simon's visi-screens.

"By the omnipotence of Gorma Hass," gasped the squad leader. "Here are visi-screens and audiophone receivers. Someone has had the audacity to come here and spy on us?"

"He can't have escaped," said one of the soldiers.

An unpleasant grin spread over the leader's face. "Put down what you are carrying!" he roared. "Search the place! Make sure that the treacherous scoundrel does not get away!"

The Brain watched in quiet satisfaction as the bewildered soldiers spread out to run through the different rooms. Most of them did not even spare him a passing glance. One, however, came close, and caught sight of the lens-eyes at the ends of the flexible stalks.

"Here's another curious piece of apparatus!" he called. "Shall I try to find out what it is?"

"No, you fool, look for the man who was using it! He can't have got away! He must have been at the screens while we were approaching."

As the soldier turned away, Simon glided noiselessly into the next room. A quarter of an hour later he heard the leader cursing. "Of all the stupid blockheads! A man is here and you can't find him! What do you think he's done, disappeared into thin air?"

The soldier who had wanted to investigate Simon approached the squad-leader in agitation.

"It's gone!" he cried. "It's gone!"

"What's gone, you fool?"

"That apparatus I was telling you about!"

"By the seven lives of a star-devil, he must have slipped back under your

noses and picked it up! You'd better find him if you value your worthless skins!"

Soon it would be time to be gone, thought Simon. He waited until the disgruntled soldiers had completed another fruitless search and departed, their leader raving about reporting what had happened to his superior officer. But outside he posted two soldiers as sentries.

Simon drew himself by means of his traction beams to the visi-screens, once more. By the dimness of the light, he knew that evening was approaching.

Another quarter of an hour, and Simon rose to the large opening he had cut in the wall of the storehouse. He slipped through just as several more squads of soldiers came racing to the door.

Chapter 8: The Road to Gorma Hass

THE Brain floated soundlessly over the dark storehouse. Once a sentry, his attention attracted by a faint passing shadow, stared suddenly aloft, and murmured something about night-birds. His hand stole to his atom-pistol, but remained there in indecision.

"I must learn where the palace of Gorma Hass is," thought the Brain, "And the best way to do that now is to be taken there."

He waited patiently while the minutes passed. Eventually the squad-leader who had searched for him previously came out, accompanying a superior officer to whom he was apologizing profusely.

"He must have escaped, but I don't see how! I posted sentries at each door! And there aren't any windows?"

"He took advantage of your stupidity in some manner," growled the officer. "Nonetheless, if there is a clever spy among us, that fact should be known to the general in command. Leave two sentries behind, as before, and come with me."

Watching from above, Simon followed them. His plan was simple enough. By learning from each officer who his superior was, he would eventually reach Gorma Hass.

The soldiers reached a tall building, entered. Here Simon hesitated. So

long as he remained in the open air he was relatively safe, but once he entered a building, he might find himself trapped. He did not care so greatly for his own safety, but he was concerned about the success of his plan.

After a time he made up his mind, and entered. Keeping to the shadows near the ceiling, and moving only when no one was looking in his direction, he progressed soundlessly down a long corridor. At a side-corridor he paused, and just then he heard the sharp intake of a man's breath. A soldier's blue face was staring up at him, his eyes opened wide in incredulity.

Simon glanced back rapidly, only to see another pair of soldiers approaching, both of them officers. "I'm caught!" thought Simon.

"Futureman!" hissed a low voice. "Don't you recognize me?"

Simon gazed down again, and this time his eyes caught the face at a different angle. "Mar Del!" he exclaimed in a rasping whisper.

It was the young son of Ber Del, the Vegan. Down the corridor he could hear the tramp of the approaching officers. He swooped down toward Mar Del, whispered rapid instructions.

Five seconds later the approaching officers came to a halt and stared at Mar Del.

"Vegan," barked one of them sharply, "what are you carrying there?"

Mar Del's right hand finished saluting, secured a comfortable grip on the curious box he was holding in his left.

"A machine used by the spy, sir. He was disguised as a soldier, and mingled with the searching squad."

"So that's why those stupid fools couldn't find him!"

"Yes, sir. But when he got outside, one of the other soldiers recognized this machine, which had been moved unaccountably. He was captured."

"Good! Where is he now?"

"Under arrest," ventured Mar Del. He had finished repeating all that Simon had whispered to him, and now he went ahead on his own account. "I was ordered to take this box to the general."

"Carry it into that room and put it on a table," the officer directed. "I'll see that it gets to the general."

"Yes, sir."

MAR DEL stalked into the room and deposited the Brain on a table. Simon had barely time to whisper a single sentence under the eyes of the

watching officers when Mar Del turned and was leaving.

“What’s that?” snapped the officer who had spoken before. “What did you say?”

“I’m sorry, I must have been speaking to myself. I was just wondering what this machine could possibly be used for.”

“That’s not for you to bother your head about. Return to your post.”

Then, Mar Del was gone, and the Brain was left to wonder what had brought the young man into this dangerous place.

The officer approached, surveyed Simon curiously. He touched the flexible stalks on which Simon’s eyes were mounted, and moved them about. Finally he shook his head in bewilderment. “I’ll take it to the general,” he muttered finally. “Let him see what he can make of it.”

Once more Simon felt himself being carried around.

The general turned out to be a crimson Antarean, and at sight of him Simon realized anew the danger of Gorma Hass, who appeared to every man to be of his own race, and could thus persuade him the more readily to turn traitor.

“This is a machine that was being used by the spy, General. We think it should be studied carefully.”

The Antarean cast Simon a curious glance. “Very well, I’ll turn it over to our scientific experts.”

Simon had a feeling of alarm. It was all very well to puzzle a group of stolid, prosaic-minded military men. But scientists would discover his true nature, take steps to render him harmless.

“Put it down temporarily,” directed the Antarean. “We’ll take care of it later. Right now I’m preparing to visit Gorma Hass.”

Mingled with Simon’s alarm was a sense of elation. His idea had been right then. Shifting from one superior officer to the next, eventually he was sure to reach Gorma Hass.

In a few moments, Simon found himself, once more disregarded, in a corner of the room.

He waited until no one was looking in his direction. Then he rose in the air on his tractor beams and floated silently out through the window.

Mar Del was waiting for him, as Simon had directed, a few hundred feet away from the storehouse.

“What are you doing on this planet?” demanded the Brain.

Mar Del grinned. "I came in search of you, to aid you. After all, it is our battle even more than your own that you are fighting. And if you, the greatest scientist of us all, and therefore the most important, can risk yourself, so can I."

"But how did you get here?"

"I encountered a Vegan secretly in the service of Gorma Hass," replied Mar Del. "He assured me that Gorma Hass himself was a Vegan, and that eventually our own system would rule the universe. I let myself be persuaded to join him."

"It is a dangerous thing you are doing," asserted the Brain. "All the human spies employed hitherto have been unfortunate."

"It will be time enough to think of danger when it arrives," returned Mar Del carelessly. "At present it is necessary to act."

SIMON could feel himself warming to the Vegan. There was something of the spirit of Captain Future himself in this willingness to risk death to help a man who was practically a stranger to him. What was lacking was the powerful mind and the great scientific knowledge that had enabled Captain Future to defy so successfully all dangers until the final one.

"It is necessary to act," he agreed. "And first of all it is necessary to protect ourselves. There is an instrument within the storehouse that I desire to use. But there are two sentries guarding it."

"Only two?"

"Don't be rash, Mar Del," reproved Simon. "A single ray from an atom-pistol can bring your adventures to an end. I shall distract their attention while you dispose of them. Then stand guard yourself."

Simon floated over the storehouse, allowing himself to intercept a beam of light from a nearby building. At the momentary shadow, one of the sentries looked up quickly.

"What was that?"

The next moment Mar Del's atom-pistol had lanced a low-powered, paralyzing ray at his face. He fell silently. Mar Del turned swiftly as the other sentry approached, lanced another ray at him. Then he dragged the two bodies out of the way, and mounted guard himself.

Watching from above, Simon muttered approval. He glided into the storehouse, found the instrument which he had last fashioned. When he

emerged again, he let it drop into the hands of Mar Del.

A short time later, having again picked up the trail of the Antarean general to whom Simon had been brought, Mar Del had slugged a pilot and stolen a small space vessel. Soon they were on their way, following the general's ship, to the palace of Gorma Hass.

Simon kept his reflections to himself as the ship drove steadily through the planet's stratosphere.

"Obviously, Gorma Hass must attain his effects by mental power alone," he thought. "The Sverds, too, who are not human, but of the lower animals, obey him implicitly. But perhaps I shall change all that."

His tractor beams were manipulating the instrument he had taken from the storehouse.

"What is this thing, anyway?" demanded Mar Del.

"This is a will-dampener," explained the Brain. "Curtis and I worked it out a good while ago. It radiates a force that neutralizes almost completely the neuron currents in an animal's brain cells, makes him stupid and docile as a lamb."

"Do you plan to use it on Gorma Hass?" asked Mar Del eagerly.

"It would have only a slight effect on the average man, and no effect at all on Gorma Hass."

MAR DEL looked puzzled, but Simon did not explain further. Mar Del peered out, caught sight below of the ship they were trailing, and put on the rocket-brakes. He waited until the other ship had coasted to a landing, then landed himself several miles away.

Another few minutes, and they were before the palace of Gorma Hass. They saw the Antarean general leave the palace cheerfully.

"Now," said Simon, "perhaps he is alone."

The palace was a huge plant-building, in the general style of Sagittarian architecture. Mar Del approached it boldly, carrying both Simon and the will-dampener.

"Won't the guards stop us?" he asked.

"You need fear no guards," returned Simon. "Gorma Hass has no need of them."

No one interfered with them as Mar Del entered the palace. Simon watched him curiously as Mar Del strode directly through a corridor to one of

the elevator machines. “How did you know where to go?” he queried.

“I can’t say,” admitted Mar Del, “But I have a feeling that this is the way to Gorma Hass.”

Simon himself had the same feeling. He said nothing more as Mar Del walked down another corridor and entered a small room. They both stared at the occupant of this room.

Simon knew that Mar Del was seeing a man in his own image. But what Simon himself saw was a transparent serum-case, with a living brain inside. In front of the case were two glass lens-eyes, mounted on flexible stalks. He could see also the aperture of a mechanical speech-apparatus. He was looking at the image of himself. And he knew that neither of them was viewing the real Gorma Hass.

With one of his magnetic traction beams he pressed a stud on the will-dampener Mar Del was carrying. A low buzzing sound filled the room.

“You are daring, you strangers,” rasped Gorma Hass. “But you will not escape with your lives.”

Chapter 9: Joan to the Rescue

SURROUNDED by a group of the astonished Vardri, Curt Newton stepped back and surveyed his handiwork. He had dug a pit four or five feet in depth in the green soil, filling it with pieces of wood obtained from native trees.

The trees themselves had been chopped down with sharp stone axes that he had shown one of the Vardri how to prepare. He had covered over the top of the hole with a smooth clayey soil to be found in the neighborhood.

“Ready, Varra?” he called. “Yes, Curtis.”

The girl smiled proudly at the thought of having a part in the accomplishment of such strange and wonderful feats. She clumsily moved back and forth a primitive bow that Curt had fashioned. The bowstring of animal sinew was coiled around a wooden spindle that whirled in a groove cut in a piece of hard wood. As she continued to move the bow, several pieces of tinder placed in the groove began to smoke from the friction. Then a small clear flame sprang up.

One of the Vardri sprang back with a sudden cry. "More magic!" he yelled. "Evil magic!"

It was Lherr, Curt grimaced in slight disgust. In the short period he had been with the tribe, he had already found Lherr to be a troublemaker. But now he had no time for arguments. He inserted a small dry branch into the flame, transferred the flame to the pit. The wood in the pit caught fire, began to smolder. A thick black smoke began to pour from a vent Curt had made.

He straightened up with satisfaction. If he remembered his history of science properly, it would take a full day for the experiment to reach completion, but when it had done so, he would have an ample supply of charcoal to begin the smelting of iron and copper.

It was the copper that he wanted most. He had thought it would be easy to find lumps of the native metal in this copper-rich world, but all his searching had been without success. He had been forced to resort to the usual metallic ores. He had searched for and discovered deposits of different copper sulfides and iron oxides.

"Varra wishes to help," offered the girl. "What next?"

"Let me see." Curt frowned. "I think the skins of some of those animals I killed will make a useful pair of bellows."

He began to describe how he wanted the skins sewn together. Varra listened with an expression of intelligence, but with complete lack of comprehension.

"Why do you wish them sewn together? Will you wear them as a head dress?"

Curt sighed. "No, Varra. I wish to be able to create a strong current of air."

"Air? What is that?"

"It's the stuff we breathe," explained Curt. "It's all around us."

"But that is nothing," objected the girl. "All around us is empty!"

This time Curt groaned. Imagine trying to carry on his work with the aid of a savage assistant, a girl so ignorant she didn't even know there was such a thing as air! And yet, thought Curt, she was intelligent. It was simply that her mind had never been exposed to any of the knowledge which went to make up modern science. Soon Curt would be needing a real assistant. Some one like Otho, with his quick mind and inimitable skill, or Grag, with his enormous strength, or Joan Randall —

HE STRAIGHTENED with a sudden gasp. Joan Randall! Of course. He felt a flush of shame as he stared at the transparent metal crystal that Simon had made. Bound to his wrist, it was the one possession he had left of all his scientific equipment. But he had hitherto been so preoccupied with the tasks and the difficulties that faced him that he had neglected it. And he had inexcusably neglected Joan, too.

His eyes gleamed suddenly. "Joan!" he thought intensely. "Joan Randall! Can you hear me?"

The blue-skinned girl studied his silent face in astonishment. To her it appeared that Curt had taken leave of his senses. A few moments passed.

"Joan!" his mind repeated. "Can you hear me?"

A startled voice seemed to speak in his brain. "Curt! Are you all right?"

"All right, Joan. But I'm cast away on a planet in one of the systems of Sagittarius."

"Curt!" came Joan's horrified voice. "You're alone!"

"No, I've come across a savage race. I'm working to build apparatus, and I've got an assistant — a very attractive blue-skinned girl of the Vegan type."

"Don't joke, Curt," replied Joan, with a touch of coldness. "I'll speak to the System President. We'll fit out a relief expedition right away."

"No, Joan, you have no quick way to reach me. You'd have to build a special ship with either the vibration drive or the dimension-traveling device. And long before you could do that, it would be too late."

"Then what —" began Joan helplessly.

"Joan, can Ezra spare you from that thief-catching case?"

"We finished the other day."

"Good. Are you still sorry," demanded Curt, "that you couldn't come along with us to Antares?"

"Of course, Curt, but I don't understand what you mean!" replied Joan in astonishment.

"Simon and I long ago considered the possibility of mind transference. With the aid of a device like our metal crystal, it's almost certain that your mind could take possession of a body in this planet."

There was a short pause. "I'm willing to try the experiment," said Joan finally. "But I don't understand why it's necessary."

"Joan, I'm engaged in a race against time. I'm having to build equipment

here from primitive materials. And if I had an intelligent assistant, I could go twice as fast.”

“Is time so very important, Curt?” she asked.

“It may mean the success or failure of our fight against Gorma Hass.”

“Then I’m willing to try it at once,” she answered promptly.

“You’ll have to make preparations,” warned Curt. “Explain to Ezra what we intend to do. Go to the Moon. Have him secure electrostatic vibration machines of a type I’ll describe for you. They’re in the Moon-laboratory, and Ezra knows how to get there. And tell him that later on he’ll have to watch over you carefully, almost as if you had lost your mind.”

“Yes, Curt.”

“I don’t know whether Varra will be willing to try the experiment,” confessed Curt. “But I believe I can persuade her. Will you be ready twenty-four hours from now?”

“Everything will be ready.”

“Here’s the description of those machines.” He went into detail, ending finally, “Good-bye, Joan, until tomorrow.”

Varra was still regarding him with amazement as the look of intense concentration faded from his eyes. Now Curt’s eyes found hers, held them commandingly. “Varra, have you ever dreamed of having your spirit visit the stars?”

“Yes, Curtis, but I do not see how —”

“I can cause your spirit to travel far away, to see strange and wonderful things,” Curt told her.

“But later it will return?” she asked.

“Yes, after a time it will return.”

“Then I should like my spirit to leave me.”

Curt nodded in satisfaction. “Tomorrow, Varra, your spirit will be in a strange new world.”

AS THE hour approached for the decisive experiment, Curt was conscious of a growing feeling of apprehension. He busied himself, and he kept Varra busy, with the work he had laid out, but he labored with only half a heart. And meantime, Lherr regarded him balefully and continued to whisper stories of Curt’s evil magic.

At the time he had arranged with Joan, Captain Future settled down once

more to think intensely.

“Joan! Is everything ready?”

“All ready, Curt,” came the response.

“You’re sure the apparatus is exactly as I’ve described? It’s important that there be no mistake. Repeat to me,” he commanded, “everything that Ezra has done.”

Joan described the apparatus, while Curt’s mind listened, “Everything is right,” he decided finally. “Now, Joan, I’m going to break contact. I’m giving my metal crystal to Varra. You know what to do?”

“Yes, Curt,” she replied with quiet confidence.

Curt wrenched his mind away from her and turned to the blue-skinned girl beside him. “Here, Varra, put on this jewel.”

“It is mine?” she asked delightedly.

“While your spirit travels. And now, Varra, look into my eyes. First your spirit must sleep.”

Curt’s magnetic gaze held her, prevented her from looking away. What he saw in her eyes pleased him. The girl seemed responsive to his will.

“You must sleep, Varra,” he repeated, slowly and soothingly. “Sleep.”

Her eyes gradually became glazed, then closed entirely. Her breathing slowed down. In the grip of Curt’s powerful will, she was sinking into an intense coma. In a quarter of an hour she was in a state of profound hypnosis.

Curt could feel the perspiration start out on his forehead. “Now, Varra, your spirit must travel. You will hear a girl’s voice.”

Varra’s body was rigid in sleep. Once she moved her right arm, and a moan seemed to come from her.

Far off, at some remote spot in the Solar System, a modulated electromagnetic current was pulsing through the metal crystal on Joan’s wrist. Dimly, Curt was conscious that some of the Vardri had approached them, were staring in fear and disbelief.

But he knew that he must not think of them. He kept his mind on Varra.

“Your spirit no longer belongs to you, Varra,” he said softly. “It wishes to leave. Do not hold it.”

The moments passed, and the girl remained deep in slumber. For the first time, Curt’s mind began to consider the possibility of failure, and the thought made his heart falter with dismay. Then he secured a grip on himself. He couldn’t fail! Simon and he had been too confident in their calculations.

Curt was dimly conscious of the chief, Kurul, whispering to Lherr, and of the latter whispering back. He caught a few words.

"It is more of his evil magic. He has imprisoned Varra's spirit."

Then he shut the natives out of his mind again, and centered his attention completely on the girl.

Suddenly she seemed to sigh. Her eyes opened, looked around wonderingly, fastened on Curt's face.

The lips moved with difficulty, as if unaccustomed to making the strange sounds. "Curt — is it you?" The words were English.

"Joan! You're here safe!"

The Vardri, hearing the unfamiliar sounds that came from Varra's lips, broke into terror-stricken flight. Curt grinned, started to put his arms around the girl, started to kiss her — and then drew back. She stared at him, her face puzzled.

Chapter 10: The Sverds Bring Menace

"CURT! What's wrong?" she asked.

"Nothing," he returned sheepishly, "Only I don't feel this is entirely you."

"I don't feel it's myself, either," confessed Joan.

"I foresee trouble," said Curt. "These savages realize that something peculiar has happened, although they're not at all sure what it is."

"Then don't you think we'd better get started at the work for which you brought me here?"

Curt nodded, and began to explain to her in detail what the situation was. Joan found that the hands and fingers of her new body had a strange facility in carrying out certain mechanical actions, such as the sewing together of skins by means of animal sinews. She set to work at several of the tasks Varra had left undone, and Curt was pleased to see how rapidly she completed them.

He went ahead with his smelting of copper in earnest now. A deposit of radium or uranium would have solved many of his difficulties, but lacking these, copper was the one metal he needed most.

He had constructed a small rough furnace of rocks, and now he filled it with a charge of the copper ore and began burning off the sulfur. The acid smoke began to roll out of the space he had left for the exhaust.

“But, Curt,” asked Joan, “why are you so insistent on getting copper first?” Wouldn’t iron be more useful to you?”

Curt shook his head. “What I’m after now, Joan, is a source of atomic energy.” He called her by name as if he had been accustomed all his life to seeing Joan Randall in the shape of this blue-skinned savage girl. “You remember how Grag gets his power?”

“He eats copper.”

“Of course. He has an atomic disintegrator inside him that breaks copper atoms down into hydrogen and helium, and releases plenty of energy in the process.”

“But,” she objected, “you haven’t got any device for setting off the disintegration.”

“For that,” said Curt, “two things are necessary. First of all I’ll need certain catalysts, made up of salts of rubidium and some of the rare earth elements. I’ve already located a source of these metals, and although it will be difficult to obtain the salts pure, a small amount of impurity will do no harm. The second necessity is a source of high voltage.”

“You can’t get that.”

“I think I can,” asserted Curt. “Only a few million volts are necessary. There’s an easy way to attain it.”

“Lightning!” exclaimed Joan.

Curt nodded. “From what old Kuru, the chief, has told me, lightning storms are one of the most greatly feared manifestations of the gods on this planet. When the next one comes, I hope to be ready for it.”

NOW that Curt had a skilled assistant, the work progressed more rapidly than before. There were a great many details to which he had formerly been forced to attend himself. Joan took these off his hands, leaving him free to devote himself to the more difficult scientific problems he was forced to tackle.

Curt selected an old dead tree, which had already been hit several times by lightning, as a likely object to be struck again. It stood stark and isolated on a small hilltop, an ideal target. He fashioned some of his copper into rough

and uneven wires, and stretched them around several limbs of the tree, so that whenever the lightning struck, the current would be sure to reach his reaction mixture.

This he placed in a hollow spot in the center of the tree. “From now on,” he told Joan, “it’s up to the lightning gods. And as Kuru asserts that they’ve been quiet for a long time, there’s a good chance that they’ll start up again soon.”

He noticed that Lherr, still muttering about evil magic, had watched his strange doings in the tree. Curt frowned. “That man will cause us real trouble yet. Keep an eye on him, Joan.”

But beyond his muttering, Lherr made no apparent attempt to do harm. Curt went on with his preparations while waiting for the lightning storm.

It came one night, with a crash of thunder that awakened him from a sound sleep. He started up to find the tribe staring at the heavens, expressions of awe and terror on their faces. Kuru and several other of the elders were repeating magic formulas intended to keep the fearful bolts away from them.

After that first crash of thunder, there followed a period of silence. But the whole sky seemed alight with darting, zigzagging streaks of lightning. An aura of light played around the old dead tree, although it had not yet been struck.

“Something in the nature of St. Elmo’s fire,” muttered Curt.

The air seemed alive with electricity. Then it began to rain gently. The aura of light disappeared, and for a brief moment the heavens were dark. Suddenly, with terrifying abruptness, the thunder roared again. A vivid light streaked down from the heavens, tore into the top of the hill. Kuru broke off his magic chant, and howled in dismay.

“No wonder,” chattered Joan, “that they’re afraid! I don’t feel any too safe myself!”

“That’s because you’re inhabiting Yarra’s body, and you’ve taken over an entire system of fear reflexes.”

The lightning began to strike more and more rapidly. Once it hit between old Kuru and Lherr, and both men leaped away in terror. Then the streaks of light began to move away.

“It’s going to miss the tree after all!” groaned Curt, “and we’ll have to wait for the next —”

A deafening crash drowned out his words. The copper wire on the dead

tree glowed with sudden incandescence, and the next moment the tree itself had leaped into flame. In the midst of the crackling wood, the copper mixture blazed like a miniature sun.

“That’s done it!” cried Curt excitedly. “We’ve got our atomic power! From now on everything is smooth sailing. I’ll be able to smelt plenty of iron and any other metal we need!”

“But will you be able to build a space ship?”

“Not a ship like the *Comet*, of course. But there’ll be no trouble in constructing a small simple one. Once you have atomic power, Joan, you have the secret of handling metals.”

THE thunder was finally rumbling away. Old Kuru, followed closely by Lherr and the rest of the tribe, was approaching with a troubled expression on his face.

“Captain Future,” he said, “your magic is not good!”

“My magic?”

“The gods have struck too close to the tribe. It is a warning. They demand a victim.”

“That has nothing to do with my magic.”

“But it has —” interrupted Lherr angrily. “It is your magic that has changed Varra’s spirit, and called the thunder of the gods to the old tree. It is evil, and must end.”

“My magic,” returned Curt in exasperation, “is just beginning. Go, Lherr, and leave us in peace, and let us have no more talk of a victim to be sacrificed to the gods. Else your spirit will soon be traveling like Varra’s among the stars.”

Lherr’s eyes gleamed wildly, “Let us kill this magician before he bewitches us all!” he cried, and rushed at Curt, his heavy club swinging.

Curt stepped in quickly and caught the handle of the club before it could begin its descent. For a fraction of a second, Lherr struggled frantically to release it from his grip. Then Curt pulled the primitive weapon away from him, and Lherr, howling with fear, fled. Kuru and the others of the tribe had made no move to interfere. Now they moved away slowly.

“I’m afraid of him,” said Joan uneasily. “Curt, he has to be watched!”

“He won’t be able to hurt us,” promised Curt. “The first thing I’m going to do is make myself a real weapon. And I start now, without waiting for the

morning.”

With Joan close behind him, Curt approached the still burning tree. Using a small metal ladle he had prepared in advance, he removed some of the disintegrating copper from the ground where it had fallen.

“We’ll let the rest of it remain where it is, and disintegrate until the reaction is completed,” he told Joan. “Meanwhile, I need that iron ore mixture.”

With Joan to help him, he worked steadily until dawn. By that time he had freed the iron from its ore, and fashioned it into an uneven tube, about two feet long, with a trigger at one end, and a suitable atomic disintegration mixture within.

He pointed the open end at the ground, pulled the trigger. A yawning hole appeared where the charge had struck.

“More like an atom-cannon than an atom-pistol,” observed Curt. “But it’s effective, and will impress people like Lherr. Now to start getting ready for building that ship.”

But the gigantic task of building a space ship on this primitive world was destined never to be completed. One night, about a week after the fateful lightning storm, Curt heard the noise of rockets, and looked up to see a blazing trail of sparks in the heavens.

“A space ship!” cried Joan.

“Yes,” agreed Curt. “It was headed toward the other side of the lake, so it isn’t likely to be too close. Probably the Sverds, as they’ve been here before.”

“You won’t be able to finish your own ship?”

“Not for a long while. Joan, I’m going to forget about the ship for a time. I may not even need it. I’m going to take some of those instruments I made and use them for another purpose.”

“But what will you do if the Sverds come here?”

“That’s what I intend to prepare for,” said Curt. “I’ve heard some curious stories about them from Ki Illok and Hol Jor, and although I don’t doubt what they’ve told me, I’d like to see these creatures with my own eyes.”

JOAN looked at him apprehensively.

“They’re invulnerable, Curt. That atom-gun won’t affect them.”

“It won’t,” agreed Curt. “But all the same I think I’ll be able to protect myself. We’ll have to hurry, Joan, First we’ll have to take that miniature

cyclotron I built and hide it underground, in a hole I'll dig out with my atom-gun. We may have a use for it later. Next I want to put together some of those electromagnetic field deflectors."

Working rapidly, Curt dismantled some of the instruments he had already constructed to aid in navigating the ship, putting them together for a different purpose. As the hours passed, he was conscious that from time to time the blue-skinned savages came to observe him curiously, but without hostility. He noted that Lherr was not among them.

The blue sun was once more high in the heavens when Curt paused with satisfaction. "That'll do for a time," he decided. "Joan —"

Joan was staring off in the distance. "Curt!" she gasped. "The Sverds!"

From the direction of the lake, a pair of the huge gray monsters were approaching. Curt noted their steady gait, their stupid, beast-like faces, the rows of instruments at their belts.

"I think I have part of the answer, Joan," he said thoughtfully.

"There's Lherr!" she pointed. "He's betrayed you to the Sverds! This is his revenge!"

"It'll be a poor revenge," said Curt, his eyes never leaving the approaching monsters. "As I figure it, Joan, the Sverds can pass through ordinary objects because their atomic vibrations are in quite different planes from our own. Simon and I agreed long ago that such a thing was possible. As a matter of fact, we had the evidence in that dematerialization trick that Ul Quorn used."

"But, Curt, don't stand there just looking at them. We'll have to escape!"

"We stay here, Joan," asserted Curt. "Of course, if my theory is correct, the Sverds are merely ghosts to us, just as we are nothing more than ghosts to them. You may wonder then how they can affect us. The answer to that lies in their instruments, which emit rays and projectiles that can make the transition from one form of vibration to another."

"Is that what you were putting together?"

"No. Unfortunately, neither Simon nor I reached the point where we could actually make that transition. However, it's time to test whether they're really invulnerable."

He aimed the atom-gun, squeezed the trigger. The atom-blast passed through the Sverds, leaving them unaffected. But it dug a hole in the ground in front of Lherr, and the blue-skinned savage stared at it open-mouthed for a

second, and then ran as if all his devils were after him.

One of the Sverds lifted a metal rod from the belt around his middle, exactly such a rod as Ki Illok had seen a Sverd use in blasting one of his soldiers, and pointed it at the waiting man and girl. Curt could feel Joan shiver as she clung to him.

Chapter 11: The Bird Men

FOR Grag and Otho, left by the Brain in Anfren, planet of Hol Jor, the time passed with maddening slowness. Without the directing influence of Curt Newton or Simon, their artificially created lives seemed at first both aimless and useless. In Anfren itself there was an atmosphere of hopelessness that helped to intensify this attitude. To Grag, indeed, life did after a time seem to hold out a single attraction — the prospect of a good fight whenever the soldiers of Gorma Hass finally attacked.

“Let me get at those Sverds,” he growled. “Strong, are they? I’ll show them what real power is!”

Otho considered this boast for a moment without replying. “Your strength will do no good, Grag,” he declared finally. “What we need to fight Gorma Hass is brains. This is a job for me.”

“Why, you vacuum-headed refugee from an unwashable test-tube!” roared Grag, for a moment aroused to his old fury at Otho’s conceit. “Do you mean to say that you see a way to conquer Gorma Hass where Simon didn’t?”

“Not yet,” answered Otho modestly. “But I’m working on a plan,” he added, with cautious vagueness.

Grag growled again, then subsided into silence. Without the presence of Curt Newton or the Brain, his quarrels with Otho lacked zest, and were soon broken off. But he did notice that from that time on Otho began to have spells of intense concentration, as if he were maturing some great plan.

Eventually there came the day when the soldiers of Gorma Haas were reported assembling on a nearby planet. Grag’s photoelectric eyes brightened in anticipation. Then Hol Jor and Ber Del, accompanied by Ki Illok, appeared before the robot and android. “We are leaving,” announced Hol Jor. “You

will take the *Comet* and follow us.”

“You mean we’re surrendering Anfren to Gorma Hass without a fight?” rumbled Grag, outraged.

“Our forces are inferior. Better to conserve them now that they may fight all the more effectively later.”

“We do nothing but run,” put in Ki Illok, bitterness in his voice. “Soon we shall have forgotten entirely how to fight.”

“We wouldn’t be running if Curt Newton were here,” retorted Grag. “Nor Simon, either. Simon, alone, had the courage to invade Gorma Hass’ stronghold. But you fellows —”

Ber Del’s blue face turned a faint purple. “The Brain left you orders to assist us, not to argue with us. Do you intend to obey him?”

Grag muttered to himself. Ber Del had him there. Whatever else he did, he couldn’t disobey the Brain’s explicit command. He nodded angrily.

Shortly afterward, Ber Del’s ship and the *Comet* rose above Anfren and streaked through the emptiness of space away from Antares, toward a neighboring star.

THE planet on which they finally landed reminded Grag and Otho of their own Moon. Its gravity was low, its surface rough and mountainous, and its atmosphere so thin that the human beings had trouble breathing it.

To Otho, who could breathe almost any air with some oxygen in it, and to Grag, who didn’t breathe at all, this caused no difficulty. While the human members of the group were forced either to wear clumsy space suits or else move cautiously and avoid over-exertion, the robot and the android wandered about freely.

It was Otho who directed their trips of exploration. Grag, puzzled by the purposefulness of the android’s manner, in vain demanded an explanation.

“I’ll bet you yourself don’t know what you’re looking for,” he decided at last.

“Wait till we find it,” replied Otho. “Then I’ll explain.”

But the days passed, and still the explanation did not come. Grag noticed that Otho wore a small instrument on his wrist, and consulted this frequently. It was obviously not a compass, for Otho referred to it even when he knew perfectly well in what direction they were going, and it was just as obviously not a watch. Grag racked his artificial sponge-metal brain in a vain attempt to

guess its purpose, eventually to give up in disgust.

It was more than two weeks after they had landed on the rocky planet that Otho finally glanced at his wrist, and uttered a cry of exultation.

“Ah, I think I’ve found it!”

“You’ve found what?” rumbled Grag.

“Radium! This thing on my wrist is a tiny, very sensitive electroscope that the Chief invented some time back. It indicates a fair-sized deposit of ore a few dozen feet underground.”

“So what? Why just the big mystery about a bit of radium?”

“Because it’s necessary for my plan!” exclaimed Otho eagerly, “Grag, do you remember how the Chief got out of trouble on the Moon some time back, when we were all hunted as outlaws?”

“He invented a damping-wave transmitter to inhibit electronic movement.”

“Exactly. For a piece of scrap iron, Grag, you’ve got a better memory than I thought,” admitted Otho. “I helped him build it, and I remember what he did. Why can’t we build one to use against Gorma Hass?”

“We can. But it wouldn’t work.”

“Why not?” demanded Otho, “Don’t the soldiers of Gorma Hass use atomic power in their space ships and their weapons? Doesn’t atomic power depend on accelerating the electron movements? Don’t these rays inhibit the acceleration? Grag,” said Otho pompously, “I give you my word of honor as a scientist, this device will stop the men of Gorma Hass cold in their tracks! When it does that, we’ll do our fighting with clubs and spears — and then you’ll be able to use that great strength of yours.”

Grag still looked unconvinced. “It sounds good,” he granted, “but if it was as simple as that, why didn’t the Chief or the Brain think of it?”

“Maybe they did, but just kept the idea to themselves.”

Grag shook his head. “Now that I have a chance to think of it, I remember the Chief saying it wouldn’t be any good in a real war, against an enemy who knew the danger. But, anyway, we’ll go ahead. Where do I come in on this?”

“You dig,” said Otho. “I’ll tell you where. Just follow directions and you’ll be all right. And keep that Eek of yours away from here, because if he swallows any radium ore, I’ll dissect that moon-pup limb from limb to get it back again.”

Grag barked out a word of command, and Eek, along with Otho's pet, backed hastily away from the scene of operations. Then Grag went to work, his great metal hands tearing the dirt and rock away with all the speed of a dredging machine.

AFTER a time Otho noticed that Grag was speeding up. "It's radium emanations," explained Grag. "They stimulate my reflexes. Come on over and try some."

"Not me," retorted Otho hastily. "Not without a lead suit. They'd fry my plastic flesh a little too much for comfort. How close are you to the ore?"

"Just a few more feet to dig."

"Then I'll go back to the camp, and tell the others to prepare the copper and other metals that we'll need."

An hour later, when Otho proudly returned, accompanied by the curious and unbelieving star-captains, he found that Grag had stopped working. The giant robot had clambered out of the hole he himself had dug and was in the midst of what appeared to Otho to be an admiring circle of great birds.

They were an inch or two below six feet in height, about two feet in width, and possessed of intelligent, inquisitive faces that reminded Otho strongly of penguins. But instead of being covered with feathers, their bodies were shielded by layers of thick transparent material faintly resembling scales. They carried what looked like bronze spears, four feet in length. One of them, slightly taller than the rest, carried a spear apparently made of gold.

Not far away from Grag, Eek was gazing at the strange creatures in surprise. Otho's eyes searched the ground, and soon located Oog, who had taken no chances and turned into a perfect imitation of a rock.

Satisfied that his own pet was safe, Otho approached Grag angrily.

"What's the idea of stopping work?" he demanded.

"These people came over here to see what was happening. And, besides, I wanted to see what they were."

"You call these things people?" demanded Otho. "They're birds!"

"They are the Teuri," put in Hol Jor. "I had heard of them, although I had never seen them before. They are intelligent and friendly."

"They were admiring me," observed Grag.

"Then they can't be very intelligent," returned Otho. "What do they want?"

“I don’t know. They don’t seem to have any language we can speak or understand,” said Grag. “They just make clucking sounds.”

“The Chief would have discovered how to talk to them. Anyway, Grag, you’ve got no time to waste being admired. You’ve got to finish digging out that radium ore.”

Grag nodded, and began to dig once more, while Otho set up the apparatus he would need. First of all were the space suits, which were to be covered with lead so as to repel the dangerous radiations. Then there was a great sheet of copper which Grag would hammer into a spherical shell intended to radiate the damping ray. Finally there were numerous instruments which Otho had taken from the *Comet*.

The Teuri watched as Otho made all these preparations. It was evident that they admired Grag for his great strength, and when he began to beat the copper sheet into a spherical shell, the chorus of clucking sounds became deafening.

“They look powerful,” thought Otho. “And their spears will make good weapons. If they think so highly of Grag, he might persuade them to work or fight for us. They’ll be useful when the time comes for that hand-to-hand struggle.”

As several days passed and the apparatus approached completion, Otho strutted around connecting wires, adjusting the instruments, and behaving in general like a man who was the brains of his organization and knew it.

GRAG, the metal sphere completely formed, stared at him and then laughed.

“Somebody might think you invented this outfit!” he jeered. “You’re only taking over what Curt and Simon discovered. And I bet you don’t know the whole story about it. You don’t know why the Chief said it would be useless in a real war, against an enemy who knew the danger.”

“I know enough to make this work, and that requires more intelligence than you possess,” retorted Otho. “Lift that sphere into place, Grag. Excellent. You’re not a bad assistant at that. And now we’re ready to go.”

Hol Jor, Ki Illok, and Ber Del were watching curiously. Otho threw the switch that sent the power racing into the wave-transmitter, and a loud drone filled the air. But nothing else happened.

“Is that all?” asked Ber Del in disappointment.

“All?” repeated Otho, “Wait until you see what this does! Hol Jor, point your atom-pistol at my head!”

“Very well,” said Hol Jor. He raised the slender weapon.

“Now pull the trigger!”

“Wait a minute!” cried Grag, leaping forward. He knocked the pistol to one side, and a beam lanced into the ground, transforming a piece of rock into a few wisps of vapor.

Otho’s natural complexion was a pale white. But for a moment he seemed to turn faintly green. “What — what happened?” he stammered. “That pistol wasn’t supposed to work.”

“You forgot something!” declared Grag. “Let me look at the apparatus! Ah, I see what’s wrong! The Chief used three condensers, where you’ve got only two! You were a little over-confident, Otho!”

Otho, chastened, turned off the switch, and hurriedly inserted another condenser into the oscillatory circuit. The next time, when he made connections, Hol Jor’s atom-pistol did not fire.

But Hol Jor did not attempt to test it on Otho’s head. He pointed the weapon at a rock, and Otho was satisfied to let him use that object for his experiment.

After Hol Jor had failed, the other star-captains attempted to use their own weapons. These, too, were useless.

“You see,” cried Otho triumphantly, “no device that depends on atomic disintegration can function within thousands of miles of here. Atom-pistols, space-ship engines, heating outfits, refrigeration units — all are useless so long as this apparatus is in operation! Now let the Sverds come! We’re ready for them!”

It was just at that moment that Otho felt a flipper-like hand grasp each of his arms. One of the bird-men was on each side of him, an expression of grim anger on the penguin-like faces. Each star-captain was likewise in the grip of a pair of the Teuri, while Grag had been paid the compliment of being surrounded by at least a dozen of them.

Otho stared in bewilderment. “I thought they were friendly! What’s wrong?”

“That,” said Ki Illok, and pointed.

Eek, the moon-pup, was cowering at one side. Lying on the ground near him was the remnant of the golden spear which one of the Teuri had been

holding. Otho did not need to ask what had happened. The voracious moon-pup, with his insatiable appetite for metal, had been caught in the very act of devouring the spear!

Chapter 12: The Soldiers Arrive

IT WAS useless to resist. The very machine which Otho had set in operation, by rendering the atom-pistols useless, made it impossible for him and the star-captains to defend themselves. Grag alone, by virtue of his superior strength, might have escaped, but any struggle on his part would have led to the death or injury of the others, and Grag judged it wiser to submit. "This is the second time this trip that we've suffered because of that overgrown moon-pup's appetite," said Otho bitterly, as they were led away to a chorus of clucking sounds. "Why did he have to pick on the one spear that those Teuris seem to hold sacred?"

"How was he to know?" defended Grag.

"Wonder what they'll do to us," remarked Ber Del.

It was a deft change of subject, thought Otho, but hardly a change for the better. As the Teuri led them forward, they suddenly found themselves approaching an underground entrance. A pale greenish light seemed to come from the walls of a tunnel. Probably the result of radioactivity, thought Otho.

They moved ahead several hundred feet through a high but narrow passageway, and found themselves unexpectedly in a huge grotto. The walls glittered with the same greenish light that had illuminated their way, and by its ghastly glare Otho could glimpse directly in front of them what appeared to be the grandfather of all the bird-men.

It took him a moment to realize that it was a statue he saw, standing in a great niche in the wall, and glowing with a light of its own. And it was not exactly like the bird-men in shape, either.

It was almost twenty feet in height, and about seven in width. But there were four arms, instead of the usual pair with which the Teuri were supplied, and each arm held a silver spear. Flames seemed to come from the penguin-like beak, and a glow of blue-green fire from the entire great body.

"The Teuri use radium freely," commented Ki Illok.

Otho nodded. He was a little uncertain as to what would come next, but he had an idea it would not be pleasant. This statue was undoubtedly the bird-god of the tribe. And when a group of strangers was brought before the deity of savages, human or bird-like, it was not simply for the sake of making introductions. There were a few sacrifices in the offing.

He looked around at the faces of his companions. The star-captains, who were just as much aware as he was of what was coming, showed no fear, but only curiosity. Strange, thought Otho, the way these human beings reacted. All along they had been afraid of what would happen to their people at the hands of Gorma Hass. But when danger threatened them personally, it meant little to them.

As for Grag — well, Otho liked to stir the big robot up, arouse his fury by making some remark directed at his vanity, even jeer at him occasionally for being afraid, but to tell the truth, there was not an iota of fear built into Grag's sponge-metal brain. If it came to the worst, he would go down fighting courageously — provided he went down at all. The fact was that Otho didn't see exactly how the bird-men could harm Grag, anyway.

The huge grotto was filling slowly with the Teuri. The one whose golden spear had been partly devoured by Eek was approaching slowly, making his clucking sounds.

Otho racked his brains in an attempt to discover a way out of the situation. He had speed to match Grag's strength, and a sudden dash might lead to his own freedom. But it would also lead to the death of the star-captains, with their merely human reflexes, and that meant that any attempt at his own escape was out. He would have to think of something else.

MOST of the Teuri were making the clucking sounds now, and Otho was reminded of the chants of more human savages. He could detect a sort of rhythm in the sounds, and occasionally even a rhyme or two. As time passed the rhythm appeared to quicken.

Ber Del had been staring at the huge statue of the bird-god. "Look!" he exclaimed suddenly.

The points of the four spears the statue held were incandescent. "What does that mean?" demanded Grag.

"Probably the way they intend to kill us," replied Ber Del. "Those spear points are loaded with radium."

“Very likely with poison as well,” added Hol Jor. “Just to make sure that a touch will kill, and that death will be instantaneous.”

The bird-man who had been leading the chanting was now beginning to move around in a circle, as if in a weird dance. And then suddenly he leaped toward the statue. With a motion so quick that none of the men could follow it, he pulled a spear from a pair of the extended hands, and threw it.

It sped straight for Ber Del, oldest of the star-captains. Its flight was so rapid that Ber Del had no chance to step aside. But as it drove toward his heart, Otho flung himself at it.

Otho had need of all his superhuman speed now. He caught the spear by the shaft just as the incandescent point was a foot away from Ber Del, and flung it back. The bird-man who had thrown it at Ber Del received it square on his broad body.

He fell as if blasted with an atom-pistol. And at the same time another chorus of clucking sounds came from the Teuri. Otho thought at first that the sounds were angry ones, but the actions of the bird-men quickly taught him better. They were bending over toward him, as if in worship.

Because of his feat of skill, wondered Otho? And then a rapid glance behind him gave him the answer. The Teuri were worshipping a small live bird-god, who had strutted out from behind the star-captains and was now gazing stolidly at the grotto filled with savages. The small creature raised one of its arms, and the clucking died away. Then the miniature deity sank down to the ground, and became a stone.

“It’s Oog!” breathed Otho. “Let’s hurry, before they change their minds!”

The android, the robot, and the star-captains retraced their underground path unmolested. Arrived at the surface once more, Hol Jor and the other two men wiped the perspiration away from their foreheads. Then Hol Jor laughed.

“That was close,” he said. “Lucky we had a god of our own.”

He was wrong about the men, decided Otho sadly. They *had* been slightly afraid. About the only man who would have been utterly fearless in such a situation was Curt Newton himself.

Otho threw off the switch of his wave-transmitter. “Now,” he said confidently, “let Gorma Hass and his soldiers come.”

GORMA HASS did not accept the invitation personally, but he did send

his soldiers. It was not many days after the near-sacrifice to the Teuri bird-god that Otho, watching intently, looked up to see a sky filled with the faint fiery trails of distant rocket blasts. He ran hurriedly to the wave-transmitter, and threw the switch.

What happened then was almost uncanny. The rocket trails died away, and the large space ships from which they had been coming thundered on, their speed unchecked. Otho heard no sound for a time, as the ships were moving much more rapidly than sound waves would travel. But he could see their outlines beginning to glow from the heat of friction developed in their mad onrush through the atmosphere.

“They’re going to crash!” exclaimed Ber Del.

Otho nodded happily. “They can’t use their braking rockets. And they’ve built up a terrific speed in their journey through space.”

Grag was staring fascinated at a single one of the two dozen space ships. “It’s moving parallel to the planet’s surface. It won’t crash for a long time.”

“But it will eventually,” said Otho. “It can’t help that.”

Unexpectedly, a jet of flame came from the ship’s fore-rockets.

Otho’s mouth dropped open in astonishment.

“Somehow,” observed Grag, “that ship has managed to get its atomic power working once more. Your wave-transmitting machine is a failure, Otho.”

Otho shook his head. “You think it’s a failure? Just take a look at that!”

The other space ships were crashing. Like gigantic meteorites, each hit the ground with a tremendous deafening explosion. To save his eardrums, plastic though they were, Otho judged it wise to follow the example of the star-captains, who were protecting their ears with their hands, and at the same time keeping their mouths open to equalize the pressure.

Grag, of course, being built of metal, was not so strongly affected.

The explosions came to an end. Where each space ship had struck there was now an enormous crater, several hundred yards in diameter. Near the center of each crater was a glowing lump of molten metal. Of living beings inside the crater, there was no trace.

“So my machine’s a failure, is it?” asked Otho proudly.

“You needn’t boast.” returned Grag. “It failed with one ship.”

“We’ll take care of the crew. Wait till they come after us and try to use their atom-pistols.”

They waited on the alert. It was several hours before they saw the line of soldiers coming toward them, Each space ship carried almost a thousand men and, with their atom-pistols of no use whatever, Otho figured that Grag's strength would be just about enough to enable them to win the victory.

As a triple line of soldiers came within pistol range, Otho heard a loud yell.

"Surrender, and you will not be harmed! Gorma Hass does not destroy unless it is necessary!"

Otho smiled. Those soldiers had a surprise coming to them. Their weapons would be useless. And they hadn't seen him or Grag yet; they believed that there were merely human beings to fight.

He saw the atom-pistols rise at the word of command, saw fingers press on triggers.

And then he watched the startled expressions that were on the faces of the soldiers.

"Time to let them have it," he decided.

FIVE spears sped toward the wavering lines. Four men fell to four of the spears, pierced through. The fifth spear, that thrown by Grag, went completely through a soldier in the first row, missed one in the second, and transfixing another in the third.

The rows of soldiers had stopped coming now, but a sharp word of command urged them on again. Another group of spears took its toll, then another.

At this moment, Grag stepped forward and showed himself.

"Come on, you weaklings," he roared. "I'll lick the whole bunch of you myself!"

The soldiers moved rapidly again, back toward their original position. They wanted nothing to do with the robot.

And then the ranks parted. A beast-faced gray monster came striding through between the fear-stricken soldiers.

"A Sverd!" breathed Ki Illok.

NEITHER Grag nor Otho had previously seen these feared creatures of Gorma Hass. Grag studied the approaching monster, then stepped forward.

"Here's where I pin this thing's ears back," he boasted.

The Sverd was coming silently. When it reached Grag, it made no attempt to use any of the instruments that hung at its belt. It simply stretched out its arms.

Otho stared, and for the first time in his plastic life, almost fainted. For Grag, the mighty Grag, was as helpless as a child. The Sverd lifted him, tucked him under one of its arms, and strode on!

Ten minutes later, Grag, Otho, and the star-captains were prisoners aboard the space ship that had not been destroyed, headed for a destination unknown. Their own *Comet*, piloted by several of the soldiers, followed.

Grag was still in a stupor. "I can't see," he complained, "how that animal could do such a thing to me!"

"What I don't understand," said Otho, "is why this single space ship didn't crash when that wave-machine of mine went into operation!"

The three star-captains sat in glum silence, making no attempt to answer either of these questions.

Chapter 13: Gorma Hass Talks

IN THE palace of Gorma Hass, while a buzzing sound came from the machine the Brain had constructed, the hand of Mar Del closed on his atom-pistol. He had been gazing steadily at the blue-skinned Vegan whom he knew to be Gorma Hass. He realized that the conqueror's appearance was deceptive, and that to the Brain he might have a totally different form, but all the same it gave him a feeling of reassurance to see this enemy in a shape he recognized. "That will do no good," said the Brain.

Mar Del realized that the Brain was speaking to him. He was referring to the atom-pistol.

Nevertheless, Mar Del raised the weapon and fired. The slender beam of highly energized atoms passed through the body of Gorma Hass as if it were not there. A round hole formed in the wall behind him, and that was all.

Then the Brain spoke again. "What are you doing in this world?" he rasped.

For a moment Gorma Hass was silent. Eventually, however, Mar Del saw the blue-skinned Vegan whom he knew not to be a Vegan at all break into a

smile.

“You are clever, you box-creature. Of all those whom I have seen in this Universe, you are the only one who has had the intelligence to learn what I am.”

“I do not know what you are. I only suspect. I decided that you were from out of this Universe because your mind does not function as ours do. What are you doing here?” Simon repeated. “Why have you come here to destroy?”

Gorma Hass was silent again, as if debating within himself whether or not to reply. “There is no harm in my telling you,” he said finally. “I am from a Universe where the curvature is ten times that of your own. You could no more live there physically than I could live here.”

“You mean that you have no material existence at all?” gasped Mar Del.

“Not here. My body is in the world from which I have come. And my mind can not be harmed.”

Gorma Hass was lying, thought Simon. His mind *could* be harmed, else he would not have troubled to state the opposite. He was simply trying, for his own purposes, to convince them of his invulnerability. Simon did not intend to let himself be convinced.

“Why did you come here?” he asked a third time.

“Life in my own Universe was becoming intolerable,” replied Gorma Hass slowly, “For millions of years, my race had been conscious of dangerous radiations that have penetrated our few worlds, slowly killing many of us, and harming countless others. Until recently, we looked upon these radiations as natural phenomena, phenomena which were beyond our control and must be endured.

“But a few centuries ago we discovered the truth. These harmful radiations originated not in our own Universe, but in another totally alien to us.”

“In ours,” suggested Simon.

“In yours,” agreed Gorma Hass. “Material objects in both your Universe and our own were limited by the boundaries of ordinary three-dimensional space. But radiations, being nothing but a form of wave-motion, could spread into other dimensions. Crossing a vast four-dimensional gulf, these radiations reached us.

“Many of them were harmless in the worlds where they originated. But

our worlds are subject to different laws than yours. We suffered long — and then we discovered that these radiations were created by living creatures.

“Since coming to your Universe, I have learned something of its history. Unhampered by the presence of a material body, I have been able to travel easily from one star to another. I discovered that the origin of the so-called human race was on the planetary system of the star named Deneb.

“From Deneb this race spread to other stars, some of them many light-years away. Everywhere that it spread, it built cities and civilizations. And each civilization was a source of some form of the radiations that caused so much harm in my own Universe.

“I came to a single conclusion. These civilizations must be destroyed.”

SIMON spoke as Gorma Hass paused.

“Not only the civilizations,” rasped Simon. “You seek to destroy the human race itself. For even though you reduce it to savagery, if any of its members are left, some day they will regain the civilization they have lost, and you will be in danger once more.”

“It is hardly necessary to explain to you,” said Gorma Hass with approval. “You understand only too well. I and my Sverds are too few in number to effect so great a task alone. The destruction, to be effective, must be carried out by the human beings themselves. So I have enlisted in my cause many of those I have already conquered.”

“And eventually, when they have completed your purpose, they too will be destroyed.”

“As you are to be destroyed now. By the Sverds.”

There was another short pause. Mar Del saw a faint expression of surprise beginning to form on the face of Gorma Hass. And then there came a sound from Simon that might have been laughter. The Brain’s voice-apparatus was not constructed in such a way as to permit the easy expression of the few emotions that moved him. But in those sounds Mar Del was distinctly aware of a feeling of amusement.

“It is useless to concentrate your will, Gorma Hass,” said the Brain. “You can not influence us directly. And your connection with the Sverds is broken.”

“They will come soon.”

“Not this time. I have long been certain that your control over these

creatures was purely mental. Suspecting that you yourself were nothing but mind, I knew that any form of physical control was impossible.”

“We could sense the mental control while walking through the palace,” put in Mar Del.

“Yes. This instrument whose buzzing you hear, which I worked out with the aid of a — a friend some time ago, radiates a force that neutralizes the neuron currents in an animal’s brain cells. Within the radius of its vibration, the Sverds can neither have thoughts of their own, or receive orders from you.

“Now, Gorma Hass, we shall find out whether you are as invulnerable as you claim to be.”

Simon was bluffing, Mar Del felt sure. But for one long breathless moment he saw an expression of doubt on the Vegan face of Gorma Hass. And then a Sverd walked into the room.

The creature faced Gorma Hass.

“I shall do your will, Master,” it said.

Then it turned around and saw Simon and Mar Del.

Chapter 14: Soldier for the Enemy

AS THE Sverd lifted the rod to blast him and Joan, Curt Newton moved swiftly. Joan did not see what he had done, but the next moment the figure of the Sverd and the objects about him became dim. He lowered his weapon and stared about in confusion.

“What —” she began.

Curt squeezed her arm and at the same time put a finger to his lips. Joan relapsed into silence.

Then they started to walk quietly to one side. The Sverd was still staring quietly at the place where they had been. Now Joan noticed that as they moved, the huge beast’s body seemed to glitter slightly.

After another moment, the Sverd turned and walked slowly away from them, in the direction from which he had come.

“But, Curt,” asked Joan insistently, “what did you do?”

“Merely turned on the invisibility machine I had been perfecting.”

Joan shook her head. "I remember the invisibility device you used formerly. It created an intense electromagnetic field that deflected light rays around you, so that no one could see you. But because no light hit your own eyes, you couldn't see anyone else either. Yet we could see the Sverd."

"This device worked on a different principle," explained Curt. "It bathed our bodies in a penetrating radiation of the nature of X-rays. Most of the light waves that came toward us lost their independent existence as light and became merely modulations of the penetrating waves. In other words, our bodies became practically transparent to light."

"But not completely. A tiny part of the light was reflected, and could be noticed, especially if we moved rapidly. We *would* seem to glitter slightly, just as the Sverd seemed to glitter. Of course, the reason his figure became dim is that most of the light that came from his body to us was also transformed into modulatory waves."

"But we did see him," objected Joan. "Whereas he didn't see us at all."

"Our eyes, being under the influence of the penetrating radiations, could to some extent detect the modulated light waves. His couldn't."

Curt switched off the invisibility machine, and the objects about them sprang back into their usual bright sharpness.

"Now," he decided, "we've got some more apparatus to construct in a hurry. But with the use of atomic motors, it shouldn't take us too long."

During the next few days, both Curt and Joan worked feverishly. First they created a metal shell in the shape of a Sverd. Curt had taken ordinary types of clay and smelted them to recover the aluminum. This he fused with small quantities of other elements to produce a metal alloy that was extremely light, and yet harder than any steel. Next he hammered the alloy into shape.

"Luckily, the neutral color of the alloy is about the same as that of the Sverds," he said. "We won't have to depend on a paint that might wear or chip off. As for the muscular strength — well, Grag has strong muscles, and we'll pattern our synthetic Sverd's after his, making them larger though, and taking advantage of certain improvements since the time Grag was constructed."

When the synthetic Sverd was completed, Curt slipped into the compartment that he had built into the body for himself, and snapped the door shut behind him. Joan, seeing the great beast-like body move about, was conscious of a feeling of fear, almost as if it were a real Sverd she were

watching. There might be trifling imperfections in the metal creature's appearance, but she was convinced that no human being would stare at it long enough to find them.

"As for the Sverds themselves," judged Curt, "I think that they'll be easiest of all to fool. Acting under the orders of Gorma Hass, and having very little mind of their own, they'll probably accept me without hesitation as one of their own kind."

IN THIS, as they were to discover, Curt was correct. That same day, as Curt approached the colony of soldiers sent to the planet by Gorma Hass, he was greeted with averted glances. The soldiers apparently had no love for their non-human allies. But the Sverds themselves paid their apparent comrade little attention.

Only when Curt was certain that he himself would pass as a Sverd did he venture to bring Joan with him as a pretended captive. He was surprised how little trouble he had.

No one spoke to him, either to give orders or accept them. The Sverds, as Curt had judged, received their directions by telepathic means directly from Gorma Hass. He himself could do as he pleased provided he patterned his actions in general after those of the real Sverds.

As the days passed, he became accustomed to living within his strange metal shell. He dared leave it only for a few moments at night, when he was sure no one would see him. But there was really no need to do so at all. He had taken the precaution to supply the inside of the shell with both food and water, and if occasionally the strange noises of a man eating or drinking came from the Sverd, no one cared to examine the matter too closely.

Meanwhile, he rejoiced in a physical strength that not even Grag could match. It required but the touch of his finger on a stud for him to plunge one of his metal fists through a brick wall, or to leap dozens of yards into the air. In case of necessity, he could use this strength to impress any one who might suspect his true nature.

One characteristic of the real Sverds, however, he lacked. Not existing, as they did, in a plane of vibration different from the usual one, he was unable to pass through material objects, and he was vulnerable to weapons that were sufficiently powerful. But no one troubled to observe him with care, and these deviations from the normal were not noted.

A few days after he had joined the company of the real Sverds, Curt found them preparing to leave. A dozen large space ships, each filled with human soldiers, had landed on the planet for a short stay. Judging from the conversations he overheard, these ships, along with others, would be sent to attack some military objective in a planet populated by bird-men.

When the ships finally took off again, there was a real Sverd on board each. One ship contained in addition Curt and Joan.

As they approached the planet of the bird-men, Curt could see it clearly through the visor plates of the space ship, a shining rocky sphere that reminded him of his own moon. Then the rockets began to blast, decelerating.

Curt's own ship was approaching the planet at a tangent instead of head on, and to that fact he and Joan, as well as the soldiers in the ship, were to owe their lives. For as they descended into the planet's thin atmosphere, suddenly the rockets ceased blasting.

"What's happened?" cried Joan.

The question was addressed to Curt, but one of the soldiers, not dreaming that she would speak to a Sverd, took it upon himself to answer. "Some minor trouble in the engine," he said carelessly. "It'll be fixed in a couple of minutes."

But Joan was staring at the other ships. "Their rockets have stopped blasting too!"

"What's that?" The soldier's usually pink Fomalhautian face was white with fear, "Then it may be some enemy trick! We'll crash!"

MEN were already running in panic about the ship. Curt Newton, in his metal shell, thrust himself through the milling crowd and made for the engine room.

"If it's effective on all the ships, it must be a damping ray," he thought. "And if it's the kind Simon and I have invented — well and good! But if it's something new —"

He shrugged within his metal shell. If it were a new type of ray he knew that he would not be able to find suitable protection against it before the ship crashed.

In the engine room the captain and several smudge-faced engineers, having as they thought found a clue to the trouble, were working excitedly on the explosion chambers. Curt threw them, aside, and slammed the chamber

doors shut. Then he removed from his belt one of the pistol-like instruments, which he, in imitation of the real Sverds, carried with him.

He adjusted a dial on one side and pointed the instrument at the explosion chamber. Then, in front of the muzzle he held a piece of wood, and pulled the trigger. A thick black smoke at once surrounded the chamber. And from within there came the faint explosion of atomic fuel.

“A Sverd who understands how an atomic engine works!” cried the captain, “I thought they were all dull-witted animals!”

“He may be working directly under orders from Gorma Hass,” said one of the engineers. “He may not be using his own brains at all.”

“He seems to know what he’s doing!”

“You can thank your lucky stars for that,” thought Curt, as he blasted away at the other chambers. The black smoke was filling the room, and everywhere that it spread, the chambers sprang into action once more. Soon the braking rockets were functioning at full efficiency.

Curt remained in the engine room until the ship had landed, then he returned to Joan. The soldiers were already pouring out into the open air. One of them, the pink-skinned Fomalhautian who had at first proclaimed that there was no danger, had taken a liking to Joan, and had stayed in the ship in an attempt to persuade her to accompany him. But at sight of the grim look of purpose about the approaching Sverd, he turned and ran. “What happened?” whispered Joan. “The engines failed because an atom-damping ray had been used. I surrounded them with a thick black carbon smoke. Carbon absorbs the damping rays, and the engines were able to operate again.”

“But how could you form a smoke so quickly?”

Curt indicated the metal instrument at his belt. “This is an ordinary heat-ray pistol, whose operation does not depend on sub-atomic processes. I adjusted it to low temperature and let it act on a piece of wood. Without enough air for complete combustion, only the hydrogen burned away, leaving the carbon behind. Much the same thing happened in the explosion of the ancient black-smoke type of explosives.”

Out in the open, the soldiers, together with the genuine Sverd who had been in the ship, were preparing for an attack. Curt marched out and silently joined them. It came to him as something of a shock when he saw who their opponents were, Otho, Grag, and the star-captains!

CURT watched with great interest the fight that ensued. He knew that the atom-pistols were useless within the range of action of the damping-ray machine, and he was amused to see the soldiers run when Grag roared his challenge.

Then he saw the other, the genuine Sverd, slowly moving forward, and he knew that it was time he himself went into action. Long before, Gorma Hass must have been impressed on the Sverds that they must help their human companions when these latter proved unable to conquer their own difficulties. Help in this case would take the form of exterminating Otho, Grag, and the others.

But the Sverds did not harm prisoners. Otho and his companions must be taken prisoner before the Sverd could get into action.

He overtook the Sverd, passed through the ranks of soldiers, and found himself facing Grag.

Grag came at him with a bellow of anger. Curt stretched out his metal hands, grasped the mighty robot, and tucked him under one of his own great arms. He could feel the robot squirming furiously, but Grag's strength was not nearly equal to his.

Then Curt strode on toward the others. After what they had just seen, Otho and the star-captains were in a daze. In a moment, the unequal struggle was over.

Within his metal shell, Curt grinned to himself at the woeful faces of his prisoners.

Chapter 15: Lesson in Robot Anatomy

IN THE prison to which they had been brought, Grag and Otho stared moodily at each other and at the star-captains. At their feet played the two pets, Oog and Eek. Grag and Otho were not quite sure why they had been permitted to keep the animals.

"So," observed Otho bitterly, "the great Grag was going to tear a Sverd to pieces as soon as he got his hands on one!"

"They're stronger than I thought," muttered Grag. "Also, Gorma Hass is cleverer than *you* thought. That damping-ray machine of yours was going to

ruin his plans. Look what it got us into!”

“It didn’t get us into anything,” retorted Otho. “If not for the machine, we’d have been killed or taken prisoner even sooner.”

“Oh, sure. But when the Chief constructed a damping-ray machine, he didn’t have to make excuses afterward. Any more clever ideas?”

“Hundreds of them.” Otho began to pace back and forth excitedly. “And one of them is first class. It’s an idea for an escape.”

“From this place?” Grag waved a long metal arm. They were in a nearly cubical room, forty feet high, and fifty feet in each of the other dimensions. What windows the room possessed were small and close to the ceiling. And the doors and walls were of some metal whose nature they did not know. But Grag had already tested it and found that it would not yield to his strength.

“Yes, from this place. The windows are a little more than thirty feet from the floor. I can make the leap easily, and then squeeze through to the outside.”

“*You* can. But how about the rest of us? How about me, for instance?”

“I can take you with me,” declared Otho.

Otho was pleased to see the rest of them stare at him as if there were something wrong with his mind. He himself knew that there wasn’t. He had a foolproof idea this time. What a difference there would be in their expressions when they heard it!

“This,” said Grag, “is the first time I ever heard of a son of a test-tube going crazy!”

“I thought,” returned Otho, “that you might have enough brains to think of the idea yourself. But as you haven’t, I see that I’ll have to explain it to you. You forget, Grag, that you’re made of detachable parts.”

“Keep your insults to yourself, you gutta-percha guttersnipe!”

“I’m not trying to be insulting. The idea is simply to take you apart, and then for me to carry each part up to the windows and outside. Once you’re out of here, I’ll put you together again. Then you can overpower a guard —”

“What?” cried Grag. “And have you give me the laugh for the rest of your unnatural life? Never!”

“Oh, well,” sighed Otho, “if you consider your pride more important than our freezing ourselves, and getting the better of Gorma Hass —” he shrugged.

The star-captains had not hitherto interfered in the argument. Now Hol

Jor interrupted, "I remember once when I was in danger of capture I escaped with important information by disguising myself as a woman, Can you imagine me, Hol Jor, wearing a dress? But my escape resulted in the winning of a great battle."

"I too, remember," said Ber Del, "how in my younger days, while in the intelligence division of the Vegan Army, I worked as a menial servant, doing the most degrading and laborious tasks."

"I don't remember anything of the kind," growled Ki Illok, "but I do know that if I were in Grag's place, I'd let myself be dismantled, and that would be the end of it."

"No," remarked Otho, "we mustn't try to persuade Grag to do anything that would hurt his dignity."

Grag glowered, but they could see that his resistance had weakened. "All right," he said finally, "I'll do it! But make it fast, and let's get it over with!"

HOURS later, after night had fallen, Otho leaped for the window. He made it with feet to spare. Then he dropped lightly to the ground outside, deposited both of Grag's arms, and returned to the others. Next he brought out Grag's legs, then the metal head, and finally the giant body. This last caused him some trouble, and only after considerable twisting and tugging did he manage to get it through the narrow space of the window. As he sprang down, it slipped from his grasp and crashed against the ground.

"Careful, you fool," growled Grag's head, "Don't try to smash up my insides."

Otho fitted the head to the body, and then began to fasten the right arm back in place. He had barely finished doing so when he heard a cry in back of him. "The prisoners! They're escaping!"

Otho turned swiftly, A soldier who was raising an atom-pistol to firing position staggered back as the android's incredibly rapid fist smashed into his jaw. Before his companion could realize what was happening, Otho had disposed of him likewise. But there was another pair of soldiers behind them, and even Otho could not reach them in time to prevent their firing.

Then a metal object sailed through the air. Grag's leg caught one soldier behind the ear, his left arm caught another across the chest. Both men went down, crushed under the force of the terrific blows.

"Bring back my arm and leg," ordered Grag fiercely. "Hurry!"

Otho returned the two objects to the angry robot. Grag, with his one useful arm, quickly attached his own legs, while Otho worked on the other arm. In a few seconds Grag arose, none the worse for his experience.

In front of the prison door was a group of about a dozen soldiers, summoned by the alarm. Otho was upon them before they knew what was happening, and then the slower Grag joined the fray. In a few seconds, those who were still on their feet were running as rapidly as those feet could take them. Grag had one of his arms blasted partly away by a beam from an atom-pistol, and Otho's plastic face was slightly scorched by a heat-ray, but otherwise they had suffered no damage.

Otho's quick hands ran over the bodies of the unconscious soldiers. "Ah, here are the keys!"

He moved so rapidly toward the door that only Grag's photoelectric eyes could have noted what he was doing. Then the door swung open. The first one out was his pet, Oog, who sprang at him gleefully.

"Hurry," came Otho's voice urgently. "We have to be away before they return."

They could hear alarm bells ringing in the darkness, and see signal lights flashing all about them. It was a question of little more than seconds before soldiers would be back in force, perhaps accompanied by the feared Sverds.

"Where to?" asked Ber Del.

"The space field, where they're keeping the *Comet*. Unless it's very heavily guarded, we can capture it by a surprise attack."

They set off, Otho leading the way. Several times they passed groups of soldiers headed for the prison, but Otho's quick eyes caught sight of them first, and they were enabled to hide in the shadows while the soldiers passed. A single soldier who thought he saw some one lurking in the darkness, and showed curiosity about it, received a tap on the head from Grag and was curious no more.

THERE were half a dozen ships at the space field, the *Comet* conspicuous among them because of its odd tear-drop shape. And to the dismay of Otho and Grag, there was a guard of several hundred soldiers surrounding the ship.

"There's no hope," declared Grag gloomily.

Otho's face, scorched as it was, suddenly brightened. "I think I can

manage a temporary disguise,” he said.

“You won’t get as far as the ship,” replied Ki Illok.

“If I can get within a hundred feet, it will be enough. Wait here.”

They waited, while Otho disappeared. In a few moments he was back wearing the uniform of an officer not far below a general. His face was stained red, and it required a second glance to see that it owed its color not to a dye, but to a red earth.

“How long do you think you’ll get by with that?” demanded Grag.

“Long enough to do what I intend.” Otho, always a master of disguise, strutted back and forth, the very picture of a pompous officer. “Hol Jor, you know something about the language that Gorma Hass’ soldiers speak. How could I order them to rush off the field in pursuit of the prisoners?”

Hol Jor told him, and although ignorant of the different words. Otho repeated the syllables slowly, memorizing them.

“But be careful,” urged Hol Jor. “One wrong accent, and they will know the truth.”

“I’ll be careful. You fellows get back a little,” suggested Otho. “There’s going to be some fireworks.”

As Grag watched skeptically, Otho stalked out on the field. Several soldiers stared at him curiously, and one of them approached him, saluted, and said a few words.

Otho looked grave, cleared his throat, muttered under his breath, and moved away. The soldier looked after him, puzzled.

Then Otho reached the center of the field. Another soldier in the uniform of an officer came over to him, and Otho decided that the moment to give orders had come.

“Ernang!” he shouted.

That was the word for attention. Hol Jor listened to Otho’s little speech, and groaned. “He’s left out a syllable, it turns the whole thing into nonsense. Another second, and he’ll be caught.”

Otho must have sensed from the expressions on the faces opposite him that something was wrong. And with characteristic swiftness, he acted.

Two quick steps gave him a start. Then he leaped, far over the heads of a group of astounded soldiers, to land in the doorway of the *Comet*. A second later, two soldiers who had been inside the ship flew out, head first. The door slammed shut.

The space field was a scene of vast confusion. But in the midst of it, Grag and the waiting star-captains saw one thing clearly. The soldiers were bringing up their heaviest artillery. The *Comet* was heavily armored, but it couldn't resist powerful rays at point-blank range.

At that moment, the tear-drop-shaped ship suddenly lurched into motion. Lateral and rear rockets blasting, it skittered crazily all over the field, the force of its different exhausts knocking over soldiers like ten-pins. When finally it came to a rest near Grag and his companions, there were no soldiers nearby who were in any condition to interfere with them.

The door slid open, and Otho appeared. "Get in here!" he cried, and Grag and the others did not wait for further encouragement.

They moved almost as quickly as Otho himself would have done. Ber Del was the last to pass through the door. And with him, appearing from nowhere, came a Sverd.

"Don't let him in!" yelled Otho.

It was already too late. The Sverd was inside the ship before the door clanged shut.

As the *Comet* rose into the air, the Sverd moved ominously toward Grag.

Chapter 16: Reunion in Sagittarius

OTHO had his atom-gun out, when the Sverd did a peculiar thing. His hand rose to his chest, and a door opened there. A second later, Grag and Otho saw staring at them the face of Curt Newton himself!

"Chief!" exclaimed Grag and Otho at the same time.

And then Curt witnessed something he had never expected to see. Grag's photoelectric eyes flickered with emotion. Otho turned his head away.

A second later, he looked back. "I don't believe it," he said. "You're not Curt."

But neither Otho nor Grag required much convincing that it was really Captain Future. In a quarter of an hour, it seemed to them that Curt had never been missing. By that time, the *Comet* was off the planet, and no longer in danger of being interrupted.

Curt climbed out of the metal shell in which he had lived for so many

days. “Well, Grag,” he smiled, “I see that you’re not as strong as you used to be!”

“What’s that? Say, Chief, was it you who licked me so easily?”

“It was that shell. It can develop greater power than you can, Grag. It wasn’t really a fair contest.”

“Oh, well, Chief, if I had known it was you, I wouldn’t have felt so bad.”

Ki Illok, who had been an almost silent spectator of the Futuremen’s reunion, interrupted. “We have no time to waste on frivolous memories. The Brain is in danger, if not dead. He has invaded the stronghold of Gorma Hass as a spy. It was a daring deed, and now that we are ourselves free, we must think of rescuing him.”

Curt nodded. “I’ve learned where the palace of Gorma Hass is, and I had intended going there, anyway. And talking of prisoners, I’d better release poor Joan. I figured on getting away with the *Comet* the same as you fellows did, and I had her hide here in advance.”

“Joan in this part of space?” cried Otho incredulously.

Curt went to one of the lockers reserved for food storage, and smashed open a lock. A moment later, a blue-skinned girl of the Vegan type climbed out.

Otho whistled. “What a disguise! It’s better than anything I could do! How did you manage it, Joan?”

“Curt will tell you later,” she said with a laugh, “Meanwhile, we’d better get started on our plans for Gorma Hass.”

A few days later, the Futuremen were tramping into the palace of Gorma Hass. Curt, in his Sverd disguise, led the way. Otho was once more a soldier of high rank, and Grag, his arm temporarily repaired and his metallic features covered with plastic flesh from the *Comet*’s supplies, was a common soldier, as were the star-captains. Joan went along as a pretended prisoner.

An unexplainable feeling guided them to the room where Gorma Hass was. As they approached it, Otho’s keen ears caught the sound of a peculiar humming, and then the sound of words.

“One of the voices is the Brain’s,” he whispered excitedly. “He’s safe!”

The next moment they all heard Simon’s voice raised harshly. “Now, Gorma Hass, we shall find out whether you are as invulnerable as you claim to be.”

Curt, who was leading the way, alone entered the room. He ignored

Simon and Mar Del at first. He had eyes only for the creature who appeared to him in the shape of an Earthman counterpart of himself. Curt spoke slowly from within the Sverd shell.

“I shall do your will, Master.”

The spurious Earthman disappeared, just as completely as if he had been blasted out of existence with an atom-pistol. Curt was left alone with Mar Del and the Brain.

ANOTHER second, and Grag, together with the others, had crowded into the room. Simon faced the imitation Sverd. It was the first time Curt had heard his voice tremble.

“I thought you were dead, lad. Thank God you’re not.”

Moments later they were all back in the *Comet* and rocketing away into space before the alarm that had aroused the soldiers of Gorma Hass could bring any effective action.

Otho, at the controls once more, grinned happily. “I never thought we’d all be together again like this.”

“Otho feels better,” boomed Grag, “because now, knowing that nobody would believe him anyway, he doesn’t have to strain himself posing as a great scientist any longer.”

Curt smiled. It was good to be back again and hear Otho and Grag bickering just as they had done so many times before. He turned to the Brain.

“How did you recognize me through that Sverd getup, Simon?”

“I knew it wasn’t a real Sverd, lad, because they walk through, and not around, material objects. They don’t talk, either. That was how Gorma Hass knew, too, and departed so abruptly. And I knew it was you because of the company you kept.”

Meanwhile, Mar Del had been staring in open admiration at Joan. Now he spoke to her in one of the languages used by the blue-skinned Vegans, Joan shook her head blankly. Mar Del tried again and again, always with the same results. Finally he contented himself with a meaningful smile, and moved away, an expression of temporary disappointment on his face.

They had left the palace of Gorma Hass so far behind by this time that there was no longer any need to think about pursuit. Simon had become lost in thought. Now he spoke to Curt.

“Lad, we’ve got some difficult decisions ahead of us. I’d like to know

your opinion.”

He explained briefly what he had learned from Gorma Hass. Curt nodded.

“You think, Simon, that there’s no use trying to overcome Gorma Hass with any weapons we now have?”

“We have none that will harm him. What there is of him in this Universe is purely mental. And I fear that his mental strength is sufficiently beyond ours to make any contest with him hopeless.”

Hol Jor spoke up. “Then there is nothing we can do to stop him from conquering the different human races, and then destroying them?”

“I don’t say that,” returned Simon. “We can defeat Gorma Hass if we learn more about him. But to do that, we must go to the Universe from which he has come.”

“That is impossible!” exclaimed Ber Del. “How can we choose the one correct three-dimensional Universe from the infinite number that exist in four-dimensional space?”

“It isn’t impossible,” returned Curt slowly. “In the first place, the number of Universes, though large, is not infinite. In the second, we know that Gorma Hass first entered this universe not far from here, some place in Sagittarius. We can judge then that in four-dimensional space Sagittarius is closest to his own Universe. And in the third place, we have a very important hint that Gorma Hass, perhaps without realizing it, gave it to Simon. The curvature.”

Simon’s stalk-eyes shone brightly. “That’s the important point, lad. A Universe with curvature ten times that of ours is a rare thing. It must be small, and it is possible only where great masses of matter exist. And such masses will have their effect in four-dimensional space. We can construct instruments to detect them.”

“Very likely, in the Universe of Gorma Hass there may be a central sun,” remarked Curt, “and, that’s where we’ll learn the secret of his origin.”

“It still seems impossible to me,” declared Otho.

“Suppose we put it this way, Otho,” said Curt. “You are told that some one you are seeking lives on a mountain located on Earth. There are many mountains on Earth, and you can not investigate each one. But then you learn that this one is ten miles high.”

“There are no such mountains on Earth,” replied Otho.

“But you realize that the figure ten is only a round number. The height

may be nine miles, or even eight, but it can not be one or two. Do you think that you would discover that mountain?"

"Even if I didn't know Earth," said Otho, "you could let me have the *Comet*, and I'd do it in a day."

"Well, our problem is similar. We know in general where to look. We search for a small Universe with curvature from eight to ten times that of ours. It shouldn't take us too long."

"You are forgetting," unexpectedly pointed out Ki Illok, "one thing that Gorma Haas said. He himself could not travel physically from his own Universe to this. The change in curvature had too great an effect. Will we be able to make the reverse journey unharmed?"

There was a silence that dragged on painfully. It was Simon who finally broke it.

"Gorma Hass did not tell the whole truth," he rasped. "Possibly he himself lacked the necessary physical strength. But the Sverds did make the journey with him. And if they could do it, so can we."

"I suggest," rumbled Grag, "that we go right ahead, and attempt it."

Curt looked around. There seemed to be agreement on every one's face. "It's decided," he said. "And now, Simon, we've got work to do."

"So have I," observed Grag, "I have to make myself a new arm."

Chapter 17: Curved Space

THE *COMET* was moving ahead cautiously in four-dimensional space once more. Otho, at the controls, had that same sense of uneasiness that had oppressed him the previous time when they made their journey from the Moon. His path swarmed with ghost suns and planets that looked real, and with real suns that he thought were ghosts. He had to rely almost entirely upon his instruments to tell them apart, and astrogation solely by instrument had never afforded him much pleasure.

Curt and Simon had devised a modified, highly sensitive form of torsion balance for determining the gravitational constant at any point, and from it they could read directly the curvature matrix of four-dimensional space. They had also mapped roughly the four-dimensional territory they expected to

cover, and for several days now they had been cruising back and forth, making careful charts of the curvature.

Now Curt and the Brain were discussing what they had found.

“The median curvature,” said Curt thoughtfully, “appears to be one and six-tenths times the usual. And there aren’t many deviations from that.”

The Brain’s stalk-eyes were peering at the charts. “Nevertheless, there seems to be a trend toward higher curvature along the right. I think we ought to try that region.”

“Then we’ll get Otho to change the *Comet*’s direction.”

Obediently, Otho shifted the *Comet*’s course. As he moved along, he could hear occasional remarks from Curt and the Brain.

“It’s dropping again,” said Simon disappointedly.

“The drop may be only temporary. We’ll keep going for a while, anyway.”

Joan was busy preparing meals for those persons aboard the *Comet* who were accustomed to eating. Near her, Mar Del was laboriously attempting to carry on a conversation using the few English words he had learned. He was having a difficult time of it, and Otho, his keen ears overhearing a few of the remarks, could not help grinning.

But Otho, no matter how interested he was in Mar Del’s English, dared not take his eyes from the instrument panel. Ahead of him was a sun that might be either real or a ghost, and it was important for him to know which. He stared at the dial that recorded temperatures, and wondered. Was the needle moving to the right or remaining stationary? Strange that he couldn’t tell —

And then he realized the truth — the needle was twisting! At the same time, he heard a whistle from Curt.

“A sudden leap to five and one-half! Simon, we’ve found it!”

The Brain’s rasping reply was drowned by the crash that came from the *Comet*’s kitchen. Then Crag’s rumbling voice carried throughout the length of the space ship. “Something funny is going on here! The *Comet* is shrinking!”

“So are you!” cried Joan.

Everything was changing shape around them. And directly ahead lay that dubious sun! Otho’s green eyes glistened. He felt sure now that it was real, and he moved swiftly to steer the *Comet* to the left of it. But no matter how

much he tried to turn the ship to the left, it refused to respond. The steering gear seemed utterly useless.

“Chief!” he yelled.

Curt came running to him. “What is it, Otho?”

“She won’t answer to the helm! And we’ll hit that sun!”

“The whole ship is warping out of shape,” said Curt, his forehead damp with perspiration, “We’ve reached the place we were looking for. Now we’ve got to get out of this four-dimensional space and into the three-dimensional. Make the jump, Otho.”

“If you say so, Chief!”

FOR a moment the entire *Comet* quivered. And then it gave one final convulsion and sped smoothly ahead once more. But now it was a different ship.

The *Comet* was foreshortened, and curiously twisted. Where there had been straight lines before, there were long sweeping curves, and where there had been smooth curves, twisting spirals were now visible. It seemed as if some one had transformed the ship by first reflecting it in a distorting mirror and then twisting it.

But it was not only the ship itself that was changed. The people in it no longer had their usual appearance. Every feature of their previous existence was still present, but so altered that no one could have recognized them. They looked like caricatures of themselves.

“What’s happened?” cried Joan, fright in her voice. “We seem under a spell!”

“There’s no cause for alarm.” The Brain’s voice, more rasping than ever, reassured them. “This is the kind of change we expected to happen. Your entire bodies, including your eyes and your brains, are different in this greatly curved space from what they were before. You’ll have to get used to the new types of sense-impressions before your muscles can coordinate. But it shouldn’t take more than a day or two. And when we return to our own Universe, everything will change back.”

“Some of the rocket tubes aren’t firing,” said Otho. “What caused that?”

“The strain was unequal on different parts of the ship. Some of the tubes must have given way at the weakest point. They can be fixed.”

There was a puzzled look on Joan’s face. “Curt,” she said, “why do you

think that we'd better stay here as short a time as possible before getting back to our own Universe?"

"My ideas are vague, but I have a hunch that —"

"That if we stay here too long, our bodies may adjust themselves to this great curvature so well as to be unadaptable again to the normal type?"

"Yes." Curt stared at her. "Those are the very words I would have used. How did you know?"

"Why, it seemed to me that you were saying so!"

For a moment there was a puzzled silence. "We expected to find new phenomena here," said Curt finally, "with new forms of wave-transmission and of ether motion. We've found them!"

"You mean that thought waves are transmitted more readily here?" demanded Ki Illok.

"As readily as light waves are in our usual worlds. I think that before we go further —"

Simon took over the incompleted thought. "We'd better decide what to do about it."

"I'd like to keep my mind to myself!" declared Hol Jor.

Chapter 18: The People of Gorma Hass

HALF an hour later, Curt Newton spoke thoughtfully.

"It appears then, that we all have the ability to receive and transmit thoughts by telepathy to some extent. Grag and Otho have the ability least; Joan has it practically to perfection. And the chances are that the inhabitants of this Universe, accustomed to telepathy, will have less trouble reading our minds than we shall have reading theirs."

"Right, lad," said the Brain. "Which means that for our own safety, in case we meet with hostile creatures, it would be advisable to develop mental shields."

Curt nodded, "I think that we already have an idea of the principle we'll have to use. At least you had, Simon, and now that I've caught your thought, I have, too. Seeing that thought waves are transmitted only by space of higher curvature, we can cause a special kind of space warp, an untwisting, so to

speak, by means of oscillating waves of the right frequency, and thus bring about their absorption.”

“I can’t argue with you, lad,” said Simon, “not when you express my own thoughts!”

It was not until several days later that the shields were completed. They were crude in appearance, but they functioned fairly well, and of all those aboard the *Comet*, only Joan could catch faint snatches of thought from any one who wore them.

Meanwhile the *Comet* had been driving ahead. Small bright suns lay on both sides of its path, and several times they passed by apparently uninhabited planets. And then one day — they did not know when, for every chronometer aboard ship had gone out of commission in this strange Universe — a faint white sun came into view. For a long time, despite an increase in brilliancy, it remained a distant star, even though the *Comet* stormed ahead toward it under the full power of the vibration drive.

“A central sun, as you expected, lad,” rasped Simon, his eyes peering at it through the *Comet*’s visor plates. “We’ll keep on the lookout for planets.”

“There’s one!” exclaimed Otho suddenly.

He pointed out a tiny reddish disk that lay ahead of them, and slightly off to the left. Curt and Simon interchanged glances.

“Make for that, Otho,” ordered the Brain.

As they approached, Otho cut off the vibration drive and set the rockets to blasting again. The red planet became unexpectedly blue as they drew closer to one side.

“Desert on one hemisphere, ocean on the other,” decided Curt. “There’s plenty of variety in the climate, and the spectroscope indicates that the air is breathable. There should be living creatures. I wonder what they’re like.”

Otho set the *Comet* down on a smooth stretch of red sand along the ocean shore. The individual gravity equalizers were still able to operate, and now that they had become accustomed to this strange Universe, every one felt entirely at ease as the door of the teardrop-shaped vessel slid open, and they stepped out on the shore.

“There’s life here, all right,” said Otho, and pointed to the water. The rounded side of a huge sea-creature cut through the waves and then disappeared.

“That’s not what we’re looking for,” rumbled Grag. “What we want is

something with intelligence. Something —” Crag’s steel jaw remained suspended in midair, the sentence unfinished.

Half a dozen creatures were approaching along the shore. They were tall and gray, and they had beastlike faces of a sort that were vaguely familiar. They strode along steadily, at a fast unfaltering pace that seemed ominous.

“The Sverds!” gasped Ber Del. “They look different, but they’re still Sverds! We’ll have to run for the ship!”

Joan shook her head. “They’re friendly,” she said, “We’ll wait for them.”

THE Sverds came close and stared at them. Curt was aware of curious phrases forming in his mind, of vague and half-formed thoughts that began by seeming to have a meaning, and then dying away.

“They’re talking,” said Joan. “Mentally, of course. It’s the only way they know. They’re asking what we’re doing here. They don’t understand why they aren’t left alone. The Masters promised to leave them alone.”

“The Masters? That would seem to be the race of Gorma Hass. Tell them, Joan, that we’re looking for the Masters.”

“They say you will find them up above,” the girl answered almost instantly.

“On some other planet?” asked Curt.

“I don’t know,” replied Joan doubtfully. “All I get is a vague idea that the Masters are up in the sky. It may be a religious concept. I don’t think the Sverds themselves are sure where the Masters are.”

“At any rate, they’re not here.”

“We’ll make a search,” put in Simon. “We’ll cover the surface of the planet, then leave.”

The Sverds watched them with curiosity as they returned to the ship. “Strange,” mused Simon. “They’re not dangerous at all — here. It would appear that they owe their destructiveness among our worlds solely to Gorma Hass.”

Shortly afterward they were blasting off again. They skimmed over the surface of the planet from a height of a few dozen miles, dividing the total area into zones, and searching each in turn, but there were no signs of buildings, or other artificial structures. Finally, they left the planet behind them, to resume their course toward the central sun.

As the planet’s blue side dwindled behind them, Otho turned to Curt.

“Shall I give her the vibration drive, Chief?”

Joan spoke suddenly, “No, Otho! Cut off the rockets, too!”

Curt looked at her sharply. “What’s wrong, Joan?”

“I just thought I had made contact with a mind — some place back there —”

Otho looked a question. “What shall I do, Chief?”

“Cut off the power. We’ll just drift for a while and see what happens.”

The next moment the *Comet* was drifting silently through space. There was an intent look on Joan’s face. Curt’s own expression was uneasy as he glanced at her, but he knew that Joan had not imagined what she had talked about. For now he too sensed a mind trying to contact him from outside the *Comet*.

And then the outlines of the huge teardrop-shaped vessel began to waver. In several places, something was coming through the walls. This something appeared to ooze through silently, and swirl within the *Comet* like a cloud of vapor. In a few seconds Curt was conscious of three distinct clouds, each with a penetrating, overwhelming mind of its own.

Curt was aware of a tautness in his throat. This was not the first occasion on which he had encountered minds like these. Alone in space, he had been almost trapped by one of them. And now — he had a sudden panicky feeling that every one in the *Comet* was in their power.

A VOICE spoke in his brain. The words were indistinct, but the meaning was clear enough. “You need have no fear. We are not like those others. We are friendly.”

Then there was a persistent silence. It lasted until Curt began to wonder whether the strangers would ever break it. He himself had no desire, almost no power, to talk.

It was Joan who finally spoke. “They want to talk through me. In that way we’ll all understand most clearly what the actual situation is.”

The Brain’s voice grated sharply. “We are listening.”

“I shall talk,” said Joan, “as if I myself were Ystal, who is speaking to me. This is what he says:

“ ‘I have examined your minds, and I understand why you have come here. You are seeking a way to destroy Gorma Hass, whose material body you know to be in this Universe.

“ ‘You can not destroy him here. His body is hidden safely, and we ourselves do not know how to find it. To defeat Gorma Hass you must return to your own Universe.

“ ‘He has told you that he is fighting to save our race, which is threatened by deadly radiations you human beings continually create. But that is only part of the truth.

“ ‘He has gone into your Universe without our consent. We have given him no command to slay as he has been slaying. It is his own evil mind that is responsible for that.

“ ‘Before Gorma Hass, there were others that made the trip into your Universe for a purpose similar to his, taking their material bodies with them. But these bodies were so weakened by the change in conditions that they became almost helpless. Their minds even had difficulty in controlling the mind of the tall red-haired youth among you. They could not carry out their original plans.

“ ‘Gorma Hass has escaped some of these difficulties by making the trip only mentally. But the power of even his mind was weakened to some extent. Otherwise, none of you would have been able to resist him at all. It will continue to become weaker as time passes and it remains separated from his body.

“ ‘To carry out his plans, Gorma Hass took with him many Sverds. These have long regarded us as their Masters, and they could not refuse his orders. Gorma Hass equipped them with instruments of war which he did not invent himself, but which came from our museums.

“ ‘Those of us opposed to him have no use for physical violence. We regard material things as evil, and wish to free ourselves from them. Because of the means he has employed, Gorma Hass will not earn our gratitude even if he succeeds in destroying the source of radiations deadly to us.

“ ‘As you can see, we are no longer bound to the planets, which were formerly our homes. All space belongs to us now. We seek constantly to improve our minds, and we are succeeding.’ ”

There was a slight pause, and Curt, breathing more freely, was able to cut in. “But how could you come in through the walls of our ship? That’s control of material things.”

“ ‘Through long evolution we have developed the power to change the planes of vibration of our atoms at will. Thus we can pass through material

objects.’ ”

“But you say that you don’t count on Gorma Hass to prevent the radiations that are so harmful to you. How then *do* you expect to control them?”

“ ‘By mental power alone.’ ”

CURT shook his head. “That hasn’t worked so far. You admit that yourselves. Although you have mental abilities far beyond ours, they give you control only of minds, your own as well as others. To control material objects you must use physical methods.”

“Right, lad,” agreed the Brain.

“ ‘But it is base to be dependent upon matter. The mind should be above such things,’ ” objected Ystal through the medium of Joan’s voice.

“We’ve seen people who thought the same,” replied Curt grimly, “and they suffered for it. Both mental and material things are important. You can’t neglect either without suffering.”

There was a pause. Joan spoke slowly again, repeating the words that were not hers. “ ‘Then you believe you have a solution for our problem?’ ”

“Simon and I can invent a device that would protect a single individual or a whole planet. So could almost any scientist of our own world. We have long known how to deal with such radiations.”

“It would take us a day at most,” agreed Simon.

“ ‘Once given a device of the proper type, we ourselves could duplicate it easily,’ ” said Ystal. “ ‘Nevertheless, I do not know how my people will receive this answer to their problem.’ ”

“First we’ll make a radiation-absorber, and then you’ll see,” replied Curt. “Grag,” he cried, “are you ready for work?”

“Sure, Chief,” returned the twisted metal figure that was now Grag.

“Dig up two or three of the smallest induction coils, and half a dozen condensers. Otho, set up a micro-size atomic motor. We’re starting on those absorbers right now.”

Simon had thought the devices would take them a day or two to make. To Curt, laboring enthusiastically, it seemed that no more than a few hours had elapsed before three absorbers were ready. They consisted simply of tiny generators which emitted spherical damping rays intended to neutralize the harmful vibrations.

Curt was conscious of what was going on in Ystal's mind. While he had been working, Ystal and his companions had sifted his thoughts, and appropriated the information necessary to make the shields themselves. The sole question now was whether they would wear them and thus admit the usefulness of the hated materialism.

Ystal seemed to be reaching a decision. " 'We shall use these devices,' " he declared finally, " 'not merely to guard against the radiations, but because their presence will remind us of our own weakness. They will help mortify our minds.' "

Curt stared. Then he laughed. This was an acceptance of the situation, and at the same time a neat method of saving face.

But Ystal was not offended. " 'Now we must consider how you are to deal with Gorma Hass,' " he said. " 'Your powers of will are not fully developed, but even after I teach you to make proper use of them, you will still be inferior in strength to him. Nevertheless, if you catch him by surprise, you may be able to meet Gorma Hass on equal terms.' "

"If we catch Gorma Hass by surprise," answered Curt, "we'll know how to deal with him."

Ystal probed his mind, " 'Your plan is a good one,' " he decided. " 'And now it is my turn to act. You will permit your mind to become blank.' " He paused, " 'No, do not resist. Try not to think at all.' "

Curt did his best to obey.

Chapter 19: The Way Back

HALF an hour later, Curt awoke. He had been vaguely aware of fingers moving within his mind, snipping connections here and there, and then joining them together again in new ways. Now he had a curious feeling as of heightened consciousness. He seemed to be more awake than ever before in his life.

Ystal and his companions had disappeared, and the *Comet* was headed outward from the central Sun. Otho was using the rocket-drive, and they were not yet going at a very high rate of speed.

"How do you feel, lad?" asked the Brain anxiously. "None the worse for

your experience?”

“Somewhat the better for it,” answered Curt. “I feel as if I’d like to come to grips with Gorma Hass right now.”

“Beware of overconfidence, Curt. Remember what Ystal said. You are still no match for Gorma Hass.”

“I told Ystal I thought I knew how to handle him, and I do. In order to send an object traveling through the fourth spacial dimension, Simon, there’s no need for us to go with it. We can use a projector. It would be something like a four-dimensional cannon.”

“And your idea is to project Gorma Hass back into his own Universe?”

Curt shook his head. “Not exactly. If I did that, he might return. I intend to project him out of our Universe into some other that is alien to both him and us. Without a projector of his own, he’ll be unable to get back. And with mind and body permanently separated, both will weaken and eventually die away.”

“But how will you get him to put himself within range of your projector?”

“I have a plan for that, too. We won’t have to search for him, Simon. He’ll come to us.”

The Brain stared at him, puzzled. Suddenly there came an interruption from Joan.

“Stop the ship!”

Otho, at the controls, spoke without turning his head. “Are those orders, Chief?”

“No, Otho, keep going.” Curt’s eyes narrowed. “What’s wrong, Joan?”

“There’s an invisible planet ahead! We’re going so fast that we’ll collide with it! Stop the ship quickly, Curt!”

The Brain spoke unexpectedly. “She’s right, lad! There’s a dark body ahead! We must stop!”

Otho’s white face betrayed uneasiness. “I’m putting on the brakes, Chief! We don’t want to smash!”

The others were looking dazedly at Otho. Curt sprang into action. He ran toward a compartment in the rear of the *Comet* and threw it open. But while reaching in, he stopped abruptly. Then, clenching his teeth, he forced his hand forward against some invisible resistance. He found one of the mental shields that he and Simon had made, and fastened it slowly over his head.

At once the invisible resistance disappeared. He ran back to Otho and the others with the remaining shields.

A moment later, Otho's face betrayed confusion. "Say, Chief, what was I stopping for?"

"Never mind now, Otho. Keep right on going. Use the vibration drive."

The *Comet* knifed ahead through space. The Brain stared at Curt again and spoke.

"What happened, lad?"

"There was an invisible planet," said Joan dully.

"There was no invisible planet, Joan. Those orders to stop the ship came from outside. Your mind, being most susceptible, received them most rapidly and most completely. But I felt them myself. And only the shields saved us."

"But, Curt, who gave those orders? Surely not Ystal?"

"Not Ystal, but others of his race. You remember that Gorma Hass wasn't alone in his evil intentions. Some of those who thought as he did traveled to our Universe. Those who stayed here undoubtedly read our minds, and tried to detain us. If we had stopped the *Comet*, they would have come on board, and that would have been the end."

"How did you have the strength to resist even for a short time, lad?" asked the Brain.

"I think I owe that to what Ystal did to my mind," mused Curt. "And now, Simon, let me tell you how I expect to make Gorma Hass come to us."

Chapter 20: Showdown

AS CURT predicted to the Brain, there was little difficulty. Back safely in their own Universe once more, with the *Comet* and themselves again taking on their usual shape, they sought out in turn the different planets where the soldiers of Gorma Hass were expected. The *Comet's* hull was sufficiently tough to repel the ordinary atom-rays that were directed at it unless the rays were fired at point-blank range. Curt did not let his enemies approach close enough for that. The result was that the soldiers of Gorma Hass quickly learned to shun the teardrop-shaped vessel, and to wait for the Sverds to overcome it for them. But the Sverds, for the first time, proved

useless.

Peering out through the *Comet*'s visor plates, her passengers saw a pair of them stalk toward the ship, their hands reaching as usual for the weapons at their belts as they strode, invulnerable, through a criss-crossing maze of deadly projectiles and deadlier rays.

And then the Sverds stopped. Their hands dropped away from their weapons, and when they moved again it was almost tamely. A door of the *Comet* slid open, and they came aboard.

That in itself was enough to demoralize the soldiers of Gorma Hass. But later, when the Sverds emerged from the *Comet* to fight against them instead of for them, they broke battle formation and ran in terror. Their opponents, heartened by the unexpected change, cut them down or took them prisoner to the last man.

The first time this happened, those on board the *Comet* were almost as startled as the others, despite Curt's explanation of what would take place.

"I still can't believe my eyes, Curt," marveled Joan. "They're such deadly, inhuman creatures."

"They're deadly only because Gorma Hass has made them so. Ordinarily, once he's given them his orders, they obey. But the farther away he is from them, the less powerful his commands are. That's why I can cut in with commands of my own, and have them shift their obedience to me."

"And you owe this also to Ystal?"

Curt nodded. "If not for him, all the special telepathic powers I had in his own Universe would have disappeared, just as they've done with you, Joan, and with the rest of us. I think they'll disappear in time anyway, but meanwhile, I've still got them, and I can use them against Gorma Hass."

For the first time since the star-captains had come to him for help, Curt found them hopeful.

"A few more victories like this," said Hol Jor, "and Gorma Hass will be defeated. His men will no longer have confidence in him."

"Gorma Hass will be defeated," agreed Curt, "but not by such victories alone. We shall have to get rid of him personally."

Ber Del looked troubled. "It is dangerous to attempt a personal struggle with Gorma Hass."

"Just as dangerous for him as for us," replied Curt. "I know that Gorma Hass had mental powers that we can not equal, but we must not exaggerate

them. You remember that when Simon and Mar Del faced him, he did not use those powers to destroy them. He relied upon the Sverds.”

KI ILLOK nodded. “I had thought of that, I have never been able to understand why.”

“It is because to be fully effective, his mind must function in a space that conducts thought waves well. Ours does not. And in addition he must be able to operate on a mind which receives thought waves without too much difficulty. Neither Simon’s nor Mar Del’s was susceptible because of Simon’s special dampener.”

“Yours will be, Curt,” said Joan.

“Aye, lad, which means that you yourself will be in the greatest danger.”

“That can’t be helped,” retorted Curt. “If we expect to get rid of Gorma Hass, I must take that chance. To make up for any inferiority in will, I’ll have the advantage of surprise. Gorma Hass won’t be expecting me to attack. And he won’t realize that he’ll need to hurry, that if I can hold him back for only a few minutes, we’ll be able to bring that four-dimensional projector to bear on him.”

“What if he is too strong?” asked Ber Del.

“He won’t be. Meanwhile, we’d better get to the next planet where Gorma Hass intends to attack, and spoil his plans there. The sooner we make it clear to him that something is seriously wrong, the sooner he’ll come to us.”

But it was neither on the next planet nor on the one after it that the final struggle with Gorma Hass was destined to come. On each, Curt was able to divert the Sverds from the tasks to which Gorma Hass had set them, and make them carry out his own will. In each case, the soldiers of Gorma Hass, without the Sverds, showed little stomach for a fight. But their master himself did not appear. Not until the *Comet* had taken part in half a dozen battles, and captured almost a score of the Sverds, did Curt and the others see a sign of Gorma Hass. And then they saw him almost too late.

Several of the Sverds, following the failure of the human soldiers, had advanced to the attack against the *Comet*. As usual, Curt had set his will against that of their master. He saw the Sverds hesitate, and expected them to come on board the ship, as all the others had done. But their hesitation lasted longer than usual. It ended in their pointing their weapons once more toward

the *Comet*.

“Otho!” cried Curt.

Otho acted quickly. It was as if he had sensed Curt’s will merely at the sound of his name. Before the slow-moving, beastlike creatures could fire, he had set the rockets blasting, and lifted the *Comet* into the air.

“Slow down,” ordered Curt. “Slow down and turn back. Gorma Hass is either on that battlefield or near it. Otherwise, the Sverds would have obeyed me. We’ll have to find him.”

“There’ll be no difficulty about that,” said the Brain.

“I’ll look for a robot,” boomed Grag.

“And I’ll keep my eyes peeled for an android,” observed Otho. “He can’t escape.”

Curt did not reply. He knew that Gorma Hass could escape without difficulty, and that only ignorance of his danger kept him in the neighborhood of the battle. That ignorance would not last long. If Curt failed to take advantage of this opportunity, he might never find another.

It was Otho’s keen eyes that detected him first. “There he is,” cried the android triumphantly. “An android just like me. Except that he’s frowning.”

“The projector is ready, lad,” remarked the Brain quietly.

Curt nodded. For the first time, he was going to make full use of the increased mental power that Ystal had given him. And Gorma Hass did not suspect!

THE *Comet*, braking to landing speed, settled down on the ground.

“I’ll have to get out,” said Curt. “I think Simon will want to come with me. I’ll want Grag and Otho, too. As for you, Joan, I think you’d better stay here.”

“We are not deserting you now,” exclaimed Ki Illok hotly. “After all, this is our fight.”

“You are staying,” replied Curt mildly.

Ki Illok, his face dazed, opened his mouth to reply, and closed it without speaking. Curt knew that he would stay.

Otho had landed the ship a few hundred feet away from the center of the fighting. As Curt and the other Futuremen advanced rapidly, the firing died away around them. The Sverds, obeying the orders of Gorma Hass, were mowing down the opposition.

“Less chance of our being hit by stray rays,” murmured Curt. “Our thanks to Gorma Hass for that.”

Grag was carrying the projector. Close behind him, the Brain floated in the air. Curt could sense the anxiety in the Brain’s mind, but he knew that Simon would say nothing that might tend to lessen his confidence. He would need all of it for the coming struggle.

Then suddenly, the figure of an Earthman loomed before Curt. There was an evil grin on the creature’s face.

“It is the box-creature and his strange companions,” said Gorma Hass. “You, the red-head, were the false Sverd. For a time I sought you in vain. But now —”

A Sverd was approaching, summoned by Gorma Hass. Curt’s mind leaped abruptly toward Gorma Hass. There was an expression of astonishment on the bogus Earthman’s face. The Sverd, his orders now confused, stopped moving, as if waiting for a clearer voice to tell him what to do.

For the first time in his life, Curt felt that his mind was something tangible, like an arm or a tentacle, with almost physical power. He seemed to feel Gorma Hass give way under the shock, he could sense the terror that filled his opponent’s mind. Curt *had* won the advantage of surprise, and in a moment the struggle would be over.

“Simon!” he cried. “Throw the switch! Now!”

The projector was directed at Gorma Hass. Simon moved hastily, and then his voice rasped out in despair. “Hold him, Curt! A wire has been burned out by a stray atom-beam!”

Gorma Hass was beginning to recover from his surprise. Curt could feel him fighting back, and for a moment he seemed to be conscious of a hand trying to grasp his brain, attempting to destroy it. To those who observed him, he seemed to be doing nothing but stare ahead at the figure at Gorma Hass, but the effort was taxing his power of will to the utmost. The perspiration started out on his forehead.

“Hold him, Chief!” It was Otho’s voice, anxious but encouraging. “Another few seconds, and I’ll have that thing fixed! He can’t throw you!”

Otho’s fingers were moving so fast that the air seemed to be full of his hands. The burned-out wire fell to the ground; another, hastily torn by Grag from his own arm, took its place. Grag’s arm fell paralyzed to his side, but he

hardly seemed to notice it. He was gazing anxiously at the robot figure of Gorma Hass.

And now Gorma Hass was gaining the upper hand. His grip was closing on Curt's brain, and not all Curt's will could force it away. He was not fighting now to pin Gorma Hass down, he was simply fighting for time. Ten seconds, five — they meant the difference between success and failure!

HE WAS not going to have five seconds. In the time that it took a thought wave to travel from the mind of Gorma Hass to his own, he heard his opponent gloating.

"You have overestimated your strength, Earthman! You are helpless now! I have merely to will it — and you will cease to exist! I have merely —"

Curt stared. For the figure of Gorma Hass had disappeared. He felt his mind relax, and a feeling of weakness swept over him.

"Get him, Chief!" yelled Otho. "He's gone!"

Gorma Hass was gone, but Curt's mind was so spent that he could not even transmit orders to the Sverd. The creature remained standing, motionless as before. And Grag, as if understanding the situation, lifted Curt off the ground with the arm that was not paralyzed, and with giant strides made for the *Comet*.

It was hours later before Curt came to. "You're all right, lad?" asked the Brain anxiously.

"All right, but weak. I'm not used to feeling this way."

"You'll get over it. You'll feel better, lad, when I tell you that Gorma Hass' soldiers lost that battle."

"As they will now lose all the battles to come," said Ber Del. "The main danger is ended. The Sverds are no longer a threat, and we fear no human opponents."

"Now, thanks to Captain Future, we can defend ourselves," added Hol Jor.

Ki Illok's eyes were gleaming. "There is at last an end to running away. It will be pleasant to see our enemies do the running."

"Then our task here is ended," said Curt. "And we'd better get back to Sol, and find out how things have gone in our absence."

"Aye, lad." The Brain's eyes rose steadily in the air as he stared at Joan.

“But first we must see that Joan makes the return journey.”

Curt nodded. Then he glanced at Mar Del, and grinned. The Vegan was disconsolately making ready to leave.

“Stay, Mar Del,” he urged, “I think there’s a Vegan girl by the name of Varra you’d like to meet.”

Mar Del shrugged uncomfortably. “I have already met the one Vegan girl I care to know, and she is not for me. I do not intend to repeat the mistake of Gorma Hass, who remained to gloat when he should have left for his own safety.”

“You think that you are in danger?” asked Mar Del.

“I fear that if I remain, I too, like Gorma Hass, will lose my mind completely.”

Joan smiled. “Stay, Mar Del. I promise you that soon I shall be able to speak your own language. And I think — I can not promise, but I think that when Captain Future is gone — I shall love you very much.”

IT WAS another day, however, before the mental interchange between Joan and Varra was completed. Soon thereafter the Futuremen, once more alone aboard the *Comet*, were speeding through four-dimensional space toward their own solar system.

“Say, Chief,” cried Otho, “I’m getting to recognize these fake suns. I can tell them from the real ones now without the instruments!”

“Excellent!” rasped the Brain. “Your ability will be useful when we make our trip to Deneb, to investigate the origin of the humanoid races.”

Otho’s eyes shone. “That’s a trip I’d like to make! When —”

There was a roar from Grag. “That’s a real sun ahead, not a fake! Keep your eyes on those instruments, you over-inflated hunk of rubber substitute!”

Curt smiled. “Some day, Otho, we’ll go to Deneb, but not now. There are too many other things to attend to first.”

And the other Futuremen, guessing his thought, agreed. It was one thing to have Joan Randall with him in the form of a blue-skinned Vegan girl. But it was quite another to see her as she really was. Even the Brain, long dead to most human emotions, or Grag, who had never had them, could understand that.

The *Comet* roared ahead. Otho pressed a stud, and the four-dimensional world disappeared behind them. Ahead was a blazing yellow star, and a black

dot that might be Jupiter moving across its surface.

It was a reasonably small Solar System, but a remarkably pleasant one.

It was a wonderful feeling, thought Curt, to be going back.

THE END

