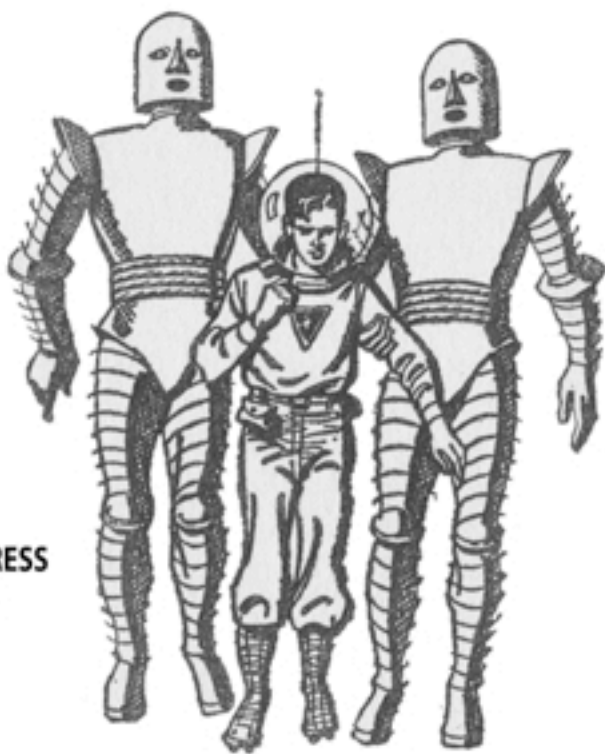


A DIG ALLEN SPACE EXPLORER ADVENTURE

# Robots of Saturn

By Joseph Greene

Illustrated by Myron Strauss



GOLDEN PRESS  
NEW YORK





# **Dig Allen— Robots of Saturn**

By Joseph Greene

Book 5 In The Dig Allen  
Space Explorer Series

With Illustrations By Myron Strauss

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*To the young people who are  
reading stories of space today,  
and who will walk on the moon tomorrow.*

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## 1 Signal From Space

THREE deep tones sounded through the loudspeaker in the control cabin of the Space Explorer Ship *Starover*. A series of sharp clicks followed. From somewhere in space a code signal had reached the ship and triggered the automatic controls of the spaceiver.

A light began to flash on and off over the recorder. Inside, a reel of wide viditape started to turn.

Dig Allen leaned over the instrument panel and flipped over one of the many switches. Code numbers and signs began to move across the spaceiver screen. The boy recognized the code at once.

He leaped out of his chair and floated across the cabin to the door.

“Hey, Ken! Hey, Jim! Report to control deck. On the double!”

Dig’s cheerful voice echoed through the main passageway of the great spaceship. A wide grin on his freckled face, the young Space Explorer waited for his spacemates to join him.

“What’s up?”

Ken Barry poked his head out of the study room a short distance down the passageway. He had been studying when he heard Dig call and the headphones were hanging loosely around his neck.

“Code message drifting in from space.”

Annoyed at being disturbed, Ken glared at his friend.

“Record it,” he grumbled. “You *can* do that, can’t you? Without my help?”

“It’s being recorded,” Dig teased. “But I thought you might be interested.”

“Look, Dig, I’m behind in my studies. Two lessons at least. I’m off watch. I want to catch up on astro-biology—”

“It’s a space-floater, Ken. Coming from Eros. You know how these messages work. A radio beam is sent out to various automatic relay stations in space which

rebroadcast it continuously until the right ship comes along with the right code to catch the radio wave length...”

“And we happen to be the ship with the right code?”

“Aye,” Dig said grinning. “The message is coming from Space Research. Top level.”

“Huh?” Ken patted his blond, short-cropped hair, then took off the earphones and tossed them into the study room. “Why didn’t you say so in the first place I it might be Dad!”

“It might...” Dig agreed with a mischievous twinkle in his eyes.

“What’s this about Dad?” Jim Barry asked, coming up through a round hatch. He was wiping his hands with a greasy rag. “Why do those rocket swivels have to get stuck on my watch? Always happens that way.”

He was a tall, slim boy with long dark hair that flopped loosely over his eyes every time he turned his head too quickly.

“Now suppose you spaceworms tell me what’s happening?”

“A message from Space Research,” Ken told his older brother. “Dig thinks it might be from Dad.”

“Hey! For us?”

“Would our spaceiver pick up a message sent with another ship’s code?” Dig asked.

“That’s true,” Jim chuckled, winking at Dig. “I would never have figured that out for myself. Good thing we’ve got you aboard, Dig.”

The light over the spaceiver blinked out. Inside the recorder

The reel of viditape stopped turning.

“That’s it,” Ken said. “Let’s see what the message says, Dig.”

“Aye.”

Dig fed the tape into the playback, then started the machine. He pushed himself into the pilot chair and



waited. Jim and Ken moved closer to watch the screen.

At first the series of code numbers and signs that Dig had seen moved over the screen. The boys read this, nodded as they recognized the code of the Chief of the Space Research Bureau, and waited. As the signals faded out, the face of Keith Barry appeared.

The famous scientist smiled gently, but it was a tired smile. His face seemed thinner than when the three boys had last seen him. There was more gray in the hair at his temples.

“Hello Jim... Dig... Ken... I hope that this message did not float around in space too long. Mother is well and sends her love. Your friends here on Asteroid Eros are all in good health, working hard and very happy.”

The scientist paused for a moment, took a deep breath, and continued. “You can guess that this message isn’t being sent just to say hello. I have a very important reason for trying to get in touch with you. I had hoped to see you on Eros. But I must leave on an important mission. Its success will mean a completely new way for you Space Explorers to work. It might even open the way to a new type of spaceship. More than this I cannot reveal now, not even by secret spacecode. I hope you understand.”

The scientist paused to give the boys a chance to think over his words.

“Within a few hours,” Dr. Barry continued, “I will be leaving in the Laboratory Ship *Beagle*. A picked crew is coming with me. Our destination is Asteroid 11,073. You will not find it on the spacecharts. Its present position is 43 degrees in C-vector of the Asteroid Belt. When you reach the area, you will be able to pick up a beam-guide signal on 17 megacycles. No matter what conditions you see ahead of you, *follow that signal*.”

The special way he said the last three words was not lost on the Space Explorers.

“Meet me there as quickly as possible. I’ll be aboard the *Beagle*. This is important. I need your help... very much.”

The screen went blank. The three boys looked at each other soberly.

“Dad looks very tired,” Jim said.

Ken shook his head. “My guess is he’s been working too hard. I can’t understand Mom letting him do it.”

“Shall I start charting the course?” Dig asked.

“Aye,” Jim voted.

“Aye,” said Ken. “Can you check time and date, Dig?”

Dig ran the tape back to the beginning. He switched in the decoder and started the machine again. There was no date. The time flashed on the screen showed 22:03.

The boys glanced at the ship’s chronometer. It stood at 23:59.

“The message was sent one hour and fifty-six minutes ago,” Jim said.

“It might have gone out yesterday or a week ago. Or a month ago,” Ken corrected his brother. “I can’t understand Dad forgetting to record the date.”

“Maybe your father was too tired to remember,” Dig said. “You know how he is when he’s working. Doesn’t remember the time, or week or even the year.”

“Aye, that’s what Dad’s like,” Jim laughed. “All right, Dig. Go ahead and chart the course.”

“Oh, no,” Dig replied, a grin on his freckled face. He pointed to the chronometer. “I’m going to sleep. *You* chart the course. This is your watch.”

Jim groaned. The chronometer ticked over to 24:00.

The *Starover* cautiously poked its nose through the wispy edges of a huge dust cloud that seemed to spread out through space for thousands of miles in all directions, blotting out the sun and stars.

Dig peered ahead through the glassteel viewport.

“I don’t like this,” he said. “It’s like trying to swim through pea soup. Are you sure we’re on the beam?”

From his post at the radarscope, Ken replied, “The

signal is coming from dead ahead. Right smack in the thick of the dust cloud.”

“Dr. Barry said follow the signal no matter what,” Dig said. He released a short burst from the stem rocketubes, giving the ship a boost in speed. “What do you read, Jim?”

“If you’re really interested,” Jim called from the magnascope screen, “I have a gorgeous view of a few million grains of dust. Magnified by our wonderful telescopic scanner.”

The dust cloud grew steadily thicker as the ship moved ahead. A steady hiss and patter came from the hull of the *Starover* as dust, sand and tiny pebbles rubbed and bounced against her plates.

From time to time the silence in the cabin was broken as Ken called out, “On course. Guide beam dead ahead. Steady as she goes.”

And Dig replied, “Steady as she goes.”

They pushed on for several hours. Finally Jim called from the magnascope.

“Clear ahead.”

They burst out of the dust cloud abruptly into a vast area of gray. The sun’s light, weakened as it filtered through the cloud, caught billions of dust specks.

Jim called again from the magnascope.

“Cluster of asteroids ahead.”

“Signal is coming from there,” Ken said, reading the direction finder on the radarscope.

“That’s where we’re going, then. Keep a sharp lookout for the *Beagle*.”

“Aye, aye, sir,” Jim called out.

“What do you make of that cluster of asteroids?” Dig asked. “I can see them but they’re still too far away for details.”

Jim raised the magnification on the magnascope and a jumbled mass of spacerock leaped into view.

“Looks like a real mess, Dig. Thousands of them,

from sand grains to ones the size of the Rocky Mountains. There's a nice big one about five points off the port side."

"That's where our signal is coming from," Ken called.

"Whew!" Jim sighed. "That's a relief. It's in the clear. The others are so close to each other, they crash once in a while. I can see two of them bouncing off each other right now!"

"Change course, five points to port," Ken ordered.

"Aye, aye, sir," Dig replied, blasting the forward nose rockets. "Course corrected."

"On the beam. Steady as she goes."

"Steady as she goes."

The *Starover* approached the asteroid and Dig began to maneuver the big spaceship into a close orbit. They circled around several times, gradually slowing down.

"Don't see the *Beagle* anywhere," Jim announced from the magnascope. "I'm checking the surface. Maybe they landed."

"How does it look for a landing?" Dig asked.

"Rocky and rough."

"Check for a good spot," Dig said.

"Aye, aye, sir."

Ken pushed himself out of his seat and floated across to stand beside his brother. He looked at the screen over Jim's shoulder.

"Don't see anything that would give us a landing place," he said.

"Over there...," Jim started to say but stopped suddenly with a gasp.

"What's the matter?" Ken glanced at Jim.

"There!" Jim pointed at the screen with his finger. "Look!"

"I don't see—Hey! That's a man!"

"You're both acting a bit on the spacegoofy side," Dig laughed. "We came here to meet someone, so why the

surprise?”

“This one... this one...” Jim stammered. “This one isn’t wearing a spacesuit.”

“What!” Dig leaped out of the pilot seat and flew across the cabin. He grabbed a stanchion above Jim’s head and held himself steady.

“Well?” Jim asked. “Am I seeing things... or what?”

Below them, as the spaceship swept over the surface of the asteroid, a tall golden figure was standing on a flat rock. He waved his hand as the ship passed overhead. For a moment the three boys stared at a hard, inhuman face with large, glittering eyes.

Then the ship slipped past and the figure began to fall back toward the horizon. It leaped from the rock and in the gray light its body seemed to glow with a golden color. Then the *Starover* passed below the horizon. The golden figure was lost among the mass of broken boulders.

Jim ran his fingers through his long hair and flipped it back away from his eyes.

“What... what was that, anyway?”

“Look for a place to land,” Dig ordered sharply.

“Aye, aye, sir!” The strict discipline the three Space Explorers observed on duty brought Jim back to the magnascope.

A few minutes later he called out, “Clear field ahead. Might do for a landing.”

Dig applied the braking rockets in the nose of the ship and brought the *Starover* around. They were moving toward the ground, tail fins first.

“Open rear scanners,” Dig ordered.

“Rear scanners on,” Jim called out. “Approach correct. Steady as she goes.”

“Steady as she goes.”

Dig began to apply landing rocket bursts. On a fiery tail, the *Starover* came down to touch the ground with her great fins.

“Anchor ship”

“Aye, aye, sir!”

Ken pressed the release button on the control board. Sharp spikes shot out of the ship’s tail fins and bit into the rocky ground. The *Starover* stood firmly on the surface of the asteroid.

The three young Space Explorers worked smoothly, like a practiced team.

“Break out the spacesuits,” Dig ordered.

Jim and Ken scrambled down to the storage locker beside the airlock. The main passageway was now vertical, like the elevator shaft of a building. The two boys climbed down the cleat ladder, as nimble as two monkeys. Dig was a step behind his spacemates, having paused long enough to set the controls of the ship in a neutral position.

Inside the airlock, they checked their oxygen supply, strapped to their backs in two oxytanks. Then Jim switched on his radicom to check the powerful radio communication system they carried.

“Just before we landed,” he called, his voice thin and tinny as it came over the earphones inside the spacehelmet, “I saw what looked like a group of spacehuts. But I’m not sure.”

“Your radicom checks, Jim,” Dig said. “I saw them too. We have to go back that way to find the golden man.”

“Radicom checks, Dig,” Ken said. He opened the outside hatch as soon as the indicator showed all the air was out of the little room, and dropped a wire ladder.

The three boys floated down to the ground, holding the wire ladder with their gloved hands. Against the dull ground, even in the gray light, the colors of their spacesuits looked bright and sharp.

On the rocky land, Dig took a few steps, then pointed with his hand. “That way.”

He set a quick pace, each step carrying him easily over ten feet. Gradually, as they walked, the three boys

became used to the light gravity of the asteroid.

The horizon on the asteroid was very close. The *Starover*, except for its nose, was almost out of sight when they reached the group of spacehuts.

A large building with an airlock was in the middle with two smaller ones joined to it by an airtight passage. Several more stood nearby, but these appeared to be supply huts.

There was no sign of life about the place. Dig went inside the airlock.

“Seem to be the usual controls on all these spacehuts,” he said.

“Say, maybe this is Dad’s camp,” Jim said hopefully.

“He would have told us to look for a camp,” Ken disagreed.

“We’ll go in and find out,” Dig said.

As soon as they had crowded inside, Ken shut the outer hatch. Dig started the controls and within a short time the indicator pointed to “Full Atmosphere.”

The three boys came through the airlock taking off their spacehelmets. They saw at once, across the large room, a confusing mass of electronic equipment arranged against the wall. In front of a large instrument panel were two low, reclining chairs. Both were bolted to the floor.

A series of red and green lights winked on and off over the rows of dials, gauges, switches and colored buttons.

All this the Space Explorers noted in a sweeping fraction of a second. What caught their eyes and held the boys spellbound in surprise were two motionless figures—two men lying on the chairs.

For a long, silent moment, the three boys held their breath. Then slowly shuffling, they approached the still figures. Around their wrists and ankles the men wore metal bands, like the slaves of ancient times. A tangled mass of wiring connected these to the instrument panel. Electrodes were fastened to each man’s forehead and

temples, with wires leading to the instrument panel.

“They... they look dead!” Jim whispered, staring at the still figures with awe.

“No, I can see them breathing. They’re asleep,” Dig said.

“Does this... this have anything to do with Dad’s work?” Ken asked. “Or have we stumbled into something?”

Impulsively, Jim reached out to touch one of the men. It was the body of a tall, darkly handsome young man.

His hand froze in mid-air as a harsh, metallic voice stopped him.

“Don’t touch me!”

The voice came from the airlock, behind them, and the three boys whirled about.

Coming through the open hatch was the golden man they had seen briefly from the spaceship. But it was not a man.

It was a huge robot with a body of gold-colored metal.



## 2 The Man-Robots

THE three Space Explorers were too startled to speak. They turned to look at the motionless bodies on the chairs, then back to the robot. Completely mystified, the three boys waited silently as the robot closed the airlock hatch.

Standing about seven feet tall, the robot towered over the three boys. It was a massive, powerful figure. Two large round eyes of sensitive crystal set in deep, oval sockets studied the Space Explorers. Through a loudspeaker placed where the mouth should be, the robot spoke.

“You are Space Explorers?”

“Aye.” Dig found his voice at last.

“What are you doing here?”

“We can’t tell you that,” Dig said. “And I must remind you that no one—not even a robot—can give orders to or question members of the Space Explorer Corps.”

In a curiously human gesture, the robot reached up with his strangely flexible metal hands and rubbed his chin.

“I was curious to mow how you found this place,” he said.

“That’s part of our secret, too,” Dig replied. Still uneasy, he went on to introduce himself, Jim and Ken. On hearing the names, a chuckle came from the robot’s lips.

“Now you have answered my questions,” he said. “Jim and Ken Barry. Of course I Your father is Dr. Keith Barry, director of Space Research.”

“You... you know him?” asked Jim.

“Very well,” the robot said, a faint chuckle sounding deep beneath the words. “I’m waiting for him right now.”

“Then you’re part of... what Dr. Barry is doing? The special project?” asked Dig.

“Very much a part of it. The most important part, maybe.”

“Then will you answer a question?” Ken asked.

The robot turned to Ken. “What is it?”

“You said,” Ken pointed to the man lying on the chair, “that this was you. Or didn’t I hear you right?”

“You heard me right. I *am* that man.”

“But you are a robot.”

“I am.”

Ken patted the short, bristly hair on his head. He looked at his brother, wrinkling his face—then at Dig. He shrugged his shoulders in a helpless gesture.

“I just don’t understand.”

“Don’t expect help from me,” said Jim, equally confused. “All the robots I’ve ever seen were boxes of special equipment, or electronic systems connected to run equipment automatically. They’re made up of tubes and transistors, diodes and electrical circuits and memory tapes...”

“Like the computer on your spaceship?” the robot asked. “Or the gyroscope robot which you call the gyrobot?”

“That’s just it,” Ken said. “But you... you are made to look like a human being...”

“I am a human being,” the robot said, “using a body made of a special, flexible metal—a robot body. I have no computer brain or memory tapes. My brain and my memory are in the head of the man on that chair... me.”

“Can one of the sensitive, electronic brains be put into your body?” Dig asked.

“Yes, after the special radionic receiver which I use now is taken out,” the robot said. “This type of robot was made especially for this expedition by Professor Jonathan Norwyn. Have you heard of him?”

“Oh, sure,” Jim said, beginning to feel more at ease. “Dad’s talked a lot about him. Professor Norwyn was his teacher in school.”

“How can you be the man in the chair and a robot at the same time?” Ken returned stubbornly to the questions which bothered him.

“How?” the robot asked. “Only Professor Norwyn can tell you. No one else knows. But I can tell you why...”

The robot crossed the room. He turned and stood with his back close against the wall.

“You see,” the robot said, “I am a robot with everything except a brain...”

“... and I am just a human being with a brain.”

It was another voice, similar yet different from that of the robot.

The Space Explorers wheeled about to see the dark-haired young man sitting up in the chair, grinning.

“Gave you a bit of a surprise, eh?”

The boys were too stunned to reply.

The man slipped the metal bands from his wrists and ankles, then took off the electrodes.

“Eerie sort of feeling,” he said. “Can’t get used to seeing myself lying in this chair.”

“By means of this electronic equipment,” Dig said, walking over to look at the instrument panel, “you put your brain inside the robot. Is that how it works?”

“Exactly.” The man stepped out of the chair. “I’m Greg Bayard,” he said. Pointing to the second figure, he added, “And that’s Max Stein, my partner.”

He shook hands with the Space Explorers, then began to explain.

“I am the thinking part of that robot body. Together, we become a complete being. Separated I’m just a human and MR-1 is just a hunk of electronic machinery. MR, by the way, means Man-Robot. Simple?”

“Not yet,” Ken persisted. “Why does the robot have a body like that of a human being? In space, you’d be better off as a round ball with a dozen arms and legs.”

“I’d be able to get around better, that’s true.” Greg said. “But how am I going to handle twelve arms and

legs?”

“I don’t understand...” Ken said.

“Professor Norwyn’s invention,” Greg waved his hand at the instrument panel, “transfers all my senses into that robot. I *am* the robot. I don’t even know I have this human body,” Greg said, tapping himself on the chest.

“All your senses?” asked Dig.

“All,” Greg repeated. “I can see. I can hear. I can touch and feel. I can smell and I can even taste. My whole nervous system is tied into that robot. Hit the robot, and I feel pain.”

“You mean you can be hurt even when you are the robot?” Jim asked.

“Well, it takes a mighty hard blow to do that,” Greg laughed. “But the answer is yes. My brain can be damaged though my real body is not hurt.”

A signal buzzed on the instrument panel and Greg turned and flipped over a switch.

“Yes, Max?”

“What’re you doing, Greg? Goofing off?” The voice came from a loudspeaker on the panel. “I tried t’reach you but got back a blank buzz. Figured you sneaked back t’home base. Listen, you lazy-boned, slide-rule genius, we’re supposed t’be out here looking for—”

“Mind your manners, Maxie. We have visitors.”

“That Space Explorer Ship, huh? I saw it orbit around. Figured they’d landed when they didn’t come over again. I guessed you’d gone to chit-chat t’ get out of work...”

“Slow down, Maxie. I’ll introduce the Space Explorers—”

“Hi,” Maxie said. “Now, Greg, time for you t’get back—”

“Pipe down! I want to describe them so you’ll recognize the boys when you meet them.”

“All right.”

“The red-haired one with the snub nose and freckles

on his face is Dig Allen. The tall, skinny one with—”

“Wait a minute,” Jim interrupted indignantly. “I’m not skinny. Slim, that’s what I am.”

“Slim Jim Barry is the skinny one,” Greg continued with a big grin on his handsome face. “He has hair flopping over his eyes half the time. His brother is shorter and has a pair of shoulders that should be on a wrestler or a weight-lifter. You know the kind I mean...”

“I know.”

“His name is Ken Barry, brother of Slim Jim, the skinny one. Ken has blond hair that’s cut so short it looks like one of those clothes brushes with stiff bristles. You know...”

“I know,” Maxie said, wearily.

“Now you can get back into your own skin,” Greg said. “I’ll take your place inside MR-2.”

“Never mind,” Maxie said. “I called t’report the *Beagle* was coming in for a landing. While you were gabbing, she made touchdown. I can already see some of the men floating down from her airlock.”

“Now isn’t that just too bad,” Greg said, a smug smile on his face. “And I was thinking of taking your place in MR-2 so you could rest up.”

“Thanks for the kind thought,” Maxie’s voice grumbled through the loudspeaker. “Only I don’t believe you. I’ll go t’meet them. See you in maybe ten minutes. Out.”

“Maxie is a short fellow,” Greg said, glancing at the still body of his friend. “He feels great inside that robot. Seven feet tall and Maxie loves every inch of it.”

“Shouldn’t we go out to meet Dad?” Jim asked.

“No, he’ll be coming to this hut,” Greg said. “They must have seen your spaceship. He’ll expect you here.”

“Greg’s right,” Dig said. “We’ll wait here.”

The wait was not long. The red warning light over the airlock flashed on and, shortly after, Dr. Keith Barry came into the room. He slipped off his spacehelmet and greeted the three Space Explorers warmly.

“I didn’t expect to find you here,” he said. “I sent my message out only a little while ago.”

“We must have picked it up right after that, Dad,” Ken said.

“How has the work been going?” the scientist asked, turning to Greg.

“Fine, sir. We’ve been crawling through that mess of asteroids and space junk out there. The MRs can take a good beating under almost any conditions.”

“I’m glad to hear it.”

“Hasn’t Professor Norwyn told you?” Greg asked, a little surprised.

“Why, no. He had no way of knowing the results of your tests.”

“I thought he did.” Greg scratched his chin thoughtfully, a gesture that was exactly the same as that made by the robot.

“Now, boys,” Keith Barry said, putting his arm around Dig’s shoulder and leading the Space Explorers to one side of the room. “I know you’re curious about this project.”

“To tell you the truth, sir, we’ve been so excited by the M-Robots that we haven’t had much time to wonder about the rest of it,” Dig told the man.

The scientist smiled in his gentle way. The boys saw the tired face and the dark circles under his eyes.

“You needn’t wonder any more,” Dr. Barry said. “We’re going to Saturn—to mine the rings.”

“The rings of Saturn!” Jim gasped. “But that’s impossible, Dad. Why, anybody going into that stuff would be ground to pieces...”

“A human being in a spacesuit, yes,” the scientist agreed. “But a human being as a robot, no.”

“You mean Greg and Maxie as... as M-Robots?”

“That’s exactly what I mean.”

The three boys took in the words and thought them over while the scientist studied their sober faces. A little

smile played around his lips. He was pleased and amused to see the way they took the news. It was not often that a Space Explorer showed surprise on his face.

“And you want us to come with you to Saturn?” A bright light sparkled in the boys’ excited eyes.

“Yes.”

“What do you say?” Dig turned to his spacemates.

There was no need for them to reply. Their faces were glowing with enthusiasm.

“What are you mining for?” Ken asked.

“A very special and rare material. Captain Boyd Allen found traces of it in the rings of Saturn. So far as we know, it’s the only place in the Solar System where it exists.”

“So that’s what my father was doing out there?” Dig exclaimed, pride in his face. “And he didn’t tell me a thing when he came back.”

“He only had a day before he took off again, Dig,” Keith Barry said in a kindly tone. “And he spent all of it with you.”

“I guess Dad would have told me,” Dig said, grinning. “Only he never thinks his expeditions are important...”

“What are you planning to do with this material, Dad?” Ken had a habit of following up every bit of information he could get.

His father laughed lightly. “We’ll talk about that when we get to my office on board the *Beagle*... It’s one of the science secrets we’ve uncovered from the Asterian information on Asteroid Eros...”

A signal buzzed on the instrument panel and Barry turned to watch Greg flip the communications key.

“Is that you, Maxie?” Greg asked. “Where are you? You should have been back...”

“This is not Maxie,” a sharp, clipped voice rasped through the loudspeaker. “This is Professor Norwyn. And I want to know just that. Where is Maxie? I’ve been out here looking for him. Call him and order him back to the spacehut. I will join you in a few minutes.”

“Aye, sir.”

Greg closed the circuit and opened another. Leaning into the microphone, he called in a low voice.

“This is Greg, Maxie. The professor is as mad as a Martian hornet. Get back to the hut. Fast.”

Greg waited for an answer. The loudspeaker remained silent. A little uneasy, he spoke again.

“Where are you, Maxie? Call in...”

No answer.

Greg was openly disturbed.

“Come in, Maxie! Maxie! Come in... come in...” He waited for a moment, then continued. “Are you in trouble? Answer, Maxie!”

He stood silently for several minutes, turning his eyes to the loudspeaker as though pleading for an answering voice. A stillness came over the room.

“Maxie,” Greg said, his voice tense and strained, “Maxie, leave the robot. Get back here. Maxie, can you hear me? Return to your body! Now!”

They turned to stare at the figure on the chair. The faint, steady breathing continued. The body of Maxie remained motionless.

“Why can’t he return?” Jim asked hoarsely.

Greg shook his head. “I don’t know. Something must have happened to the robot.”

“But Maxie is right here.” Jim pointed to the still figure.

“His body is here,” Greg said. “His mind is trapped inside the robot!”

Horror swept over the group in the hut. As they stared at Maxie’s body, his face was pale... and lifeless.



### 3 The Secret Enemy

KEITH BARRY was the first to recover from the shock.

“Call Professor Norwyn,” he directed. “Then call the *Beagle*. I want every man out searching for that robot. Also, ask Doctor Weston to come here. He’s our ship’s physician. I want him with Maxie’s... body.”

“Aye, aye, sir.”

“When Dr. Weston gets here, you take your robot and go out to look for Maxie.”

“Aye, sir.”

The scientist turned to the three boys. “Get your spacehelmets on. We’re going out, too.”

“Aye, aye, sir!”

The Space Explorers fastened on their round, glassteel helmets. All four crowded into the airlock. By the time they were outside, crew members were already spilling out of the *Beagle*’s airlock and dropping to the ground.

“Every inch of this asteroid is to be searched for a missing robot,” Keith Barry said to the men as they gathered around him. His voice was sharp and clear over the radicom. “Use these spacehuts for your starting point. Keep in sight of each other and look everywhere.”

“Aye, aye, sir.” A confused chorus of voices came through the radicom earphones.

The men spread out, forming a ragged line around the spacehuts. At a signal from one of them, they began to move away slowly, stumbling over the rock-strewn ground.

“I’m leaving you boys on your own,” Keith Barry said, turning to the Space Explorers. “You usually have ideas in a situation like this. And they’re usually good.” He turned the volume of his radicom down so that his radio carried only a very short distance. “Professor Norwyn must feel pretty badly about this.”

“Where will you be, sir?” Dig asked.

"I'll be with him in case you need me." Dr. Barry pointed to a small figure standing alone in the distance.

As the scientist walked away, Jim turned to his spacemates.

"I'm glad Dad thinks so highly of us. But right now, I haven't a single idea except to join in the search."

"What's bad about that?" asked Ken.

"But where do we start?" asked Dig. He was trying to remember what Maxie had said when he talked to the spacehut.

"Here's as good a place as any," Jim suggested.

"No." Dig spoke slowly. "Maxie was standing where he could see the *Beagle* come in for a landing. The spaceship should be our starting point."

"I don't see what difference that makes..."

"Maxie was walking *toward* the *Beagle*," Dig said. "At least he said he was when he spoke to us."

"And he saw the men coming out of the airlock," Ken reminded them.

"All right," Jim agreed. "We go to the *Beagle*."

The three boys walked toward the squat laboratory ship.

"I wonder," Jim said as they approached the spaceship, "why didn't anyone see Maxie? I mean, if he saw them..."

"Perhaps they *couldn't* see him," Dig suggested.

"He could see them but they couldn't see him?" Ken asked doubtfully. "How could that be?"

"I don't know," Dig admitted. "Let's look around and see if there's some answer."

They reached the *Beagle* and stood beside the tail fins surveying the scene. Dig walked around the great ship slowly, keeping his eyes fixed on the horizon, a short distance away. In every direction the land was fairly flat but covered by masses of loose rocks and boulders. None of these was big enough to block a view of a seven-foot-tall robot.

In one direction, the land seemed to dip at the horizon and a mass of tumbled peaks rose beyond it. Dig called his two friends to him and pointed.

“Look at those mountains,” he said. “Suppose the robot stood on top of one of these peaks when the spaceship came down for a landing.”

“He wouldn’t be noticed among those rocks,” Jim said.

“But he would see the ship land,” Dig continued. “Once he was sure the *Beagle* was down and the people coming out, he’d head for it.”

“Aye,” Ken put in. “He’d come down the mountain and be out of sight until he reached the horizon. The base of the mountains is below our line of sight...”

Excited by the thought, Jim interrupted his brother.

“That answers the question! And say, something could have happened to Maxie when he came down. A meteor could have hit him... or he could have crashed into something...”

“Come on!” Dig cried.

The three boys broke into a sprint, each leap carrying them twenty or thirty feet. They reached the dip in the land quickly. A range of jagged, rocky mountains rose less than a quarter of a mile away. The ground was flat, covered with the same rocks and boulders and no sign of the golden robot anywhere.

“He could be lying at the base of one of those mountains,” Dig said. He was not very confident, for a new thought was rising in his mind. He told his friends about it as they walked toward the mountain, searching the ground carefully.

“Greg said the robots would be hard to hurt. A fall from even the tallest of those mountains in this light gravity couldn’t hurt even a man in a spacesuit...”

“That’s true,” Jim cried. “We jump down from a spaceship and just float...”

“Well, it was a good idea anyway,” Ken said. “I’m for following through to the end. Something could—”

He stopped as his eyes picked out something at the base of a boulder larger than the others.

“What’s that?”

He bent and picked it up. It was a jagged piece of lead, covered on one side with a red label. “That’s part of a power pack battery,” Ken said. “What’s it doing here?”

He circled the rock, examining the ground carefully. In a moment he straightened up. In his gloved hand were several pieces of colored wire.

“A battery and wires,” Ken said, showing them to Jim and Dig. “The wires seem to have been melted at the ends. I’ll bet an explosion broke the battery apart,” he said.

A search of the ground revealed no other clues, and after a few minutes they started for the mountains again. But a voice on the radicom stopped them.

“Keith? Keith Barry!” It was Dr. Weston, the physician, calling. “Come to the spacehut at once.”

“What is it?”

“Maxie is back!”

“Good! How is the robot? Not damaged I hope.” The voice of Professor Norwyn was harsh and curt.

“I said Maxie, not the robot,” the doctor replied with an angry snap. “Maxie is back in his body.”

“How is he?” Keith Barry asked.

“Not good. Not good at all.”

“We’re coming at once,” the professor’s voice rasped through the earphones.

The radicom in the spacehut clicked off. The Space Explorers remained standing for a moment, undecided.

“Maxie may be able to tell us what happened and where he left the robot,” Dig said. “I think we ought to go back to the hut.”

The others agreed quickly. At the camp, they found the golden figure of Greg just entering the airlock and hurried after him. The robot held the outer hatch open until the three boys crowded inside. Then Greg closed

the hatch and started the air pumps working.

“I heard it on the radicom,” Greg explained. “I’ve got to see how Maxie is. He’s more important to me than the robot.”

Keith Barry and Professor Norwyn were bending over Maxie when they came into the hut. Greg stood his robot body against the wall, then transferred himself out. He sat up in his chair, taking off the electrodes and looked at Dr. Weston.

The physician answered Greg’s silent question with a gloomy shake of his head. “Maxie’s been unconscious since he came back and called for you, Greg.”

The young man came out of his chair and dropped to his knees beside the still figure of his friend.

“Maxie,” Greg said softly. “Maxie, it’s me, Greg. Can you hear me, Maxie? It’s Greg.”

Maxie’s head moved a little from side to side. His lips tried to form words but no sound came from him.

“Maxie, this is Greg. Open your eyes. Look at me.”

Maxie’s eyes opened slowly. He stared at his friend for a few seconds, then shut them again.

“The light...” Maxie’s lips moved as he tried to speak.

“The bright... bright light...”

“Ask him where he left the robot,” Professor Norwyn said coldly.

Greg threw a look of fury at the man. Then turned back to his friend.

“Go on, Maxie... go on...” he whispered.

“The man was... in a spacesuit... the bright light... a flash...” Maxie sighed. He opened his eyes and looked about him. Slowly, gasping for breath, he raised his head a little. “Where... am... I?” he asked and fell back.

“You’re safe in the hut,” Greg said. “With me... you’re all right now.”

“No. Floating in space... gray dust everywhere... the bright flash... that’s all I remember...”

“But you woke up,” the Professor said softly. “Where,

Maxie?”

“Space... gray dust all around... lost... floating in space. Left body there... deep... deep in dust cloud.” He lay still for several minutes, his eyes closed. Then he murmured, “Bomb... electric bolt... the man threw it... at me...”

“Who?” Norwyn asked anxiously. “Who was the man? Did you see him?”

Maxie shook his head, rolling it from side to side. “Spacesuit... behind rock... bolt bomb...” He stopped moving.

Dr. Weston felt his pulse. “He’s unconscious. My men will be here with a stretcher to take him aboard the *Beagle*. He’s in shock and partly paralyzed.”

“If the robot is somewhere out there in the dust cloud,” Greg said, “I don’t think we’ll ever find it.”

“How about a radarscope search?” Dr. Barry asked.

“Too many rocks in there. Thousands—and each one will make a pip on the screen.”

Keith Barry bit his lip and turned away. His shoulders sagged wearily.

“I don’t know who this man is,” he said, “but it looks like he’s stopped us.”

“You still have the other robot,” Ken said, coming up to his father.

“Too dangerous to send one man into Saturn’s rings—even in an MR.”

“Perhaps Professor Norwyn can build another?”

“Out of the question, boy,” the professor replied. “It took me almost a year to make these two. I’ll need at least six months.” He glanced at Dr. Barry. “Six months, Keith. Can you wait?”

“I can wait,” the scientist replied bitterly. “But will the World Council? This expedition has been stopped by sabotage—and the World Council will want to know who did the wrecking. The Space Guards will be called in to investigate... to find the guilty person...”

The scientist sighed and shook his head.

“It may take the Space Guards a long time to clear up this crime,” Jim said angrily. “And they may never find the guilty person...”

“In that case,” Keith Barry said, “the World Council may not give me another chance to go to Saturn.”

“Dad, we’ve got to find the enemy ourselves,” Jim cried. “It must be someone who doesn’t want you to go to Saturn.

Someone desperate enough to take a chance on killing Maxie with that... bomb thing...”

“Electrical bolt bomb,” Greg put in. “It gives off a heavy charge of—”

With a wave of his hand, Professor Norwyn silenced Greg Bayard. He turned to Jim.

“Young man,” the professor said, “do you think this was done to stop your father’s expedition?”

“Yes, sir.”

“Bah!” snorted Norwyn. “It was done to steal my robot!”

“Steal the robot?” Jim said, surprised.

“Of course. To rob me of my greatest invention.” The little man was becoming excited. He waved his hands and his voice began to rise. “To rob me of the honor and fame I deserve! And it isn’t the first time! I have been robbed before! My ideas! My theories! My discoveries!”

Keith Barry stepped to the old man’s side and placed his hand on the man’s shoulder.

“Professor, no one can take away your fame. You are the teacher of half the great scientists of the world.”

Norwyn shook off Keith Barry’s hand. “But I’ll build a better robot next time! Just wait! I’ll show them! All of them! My robots will go to the Sun! They’ll tap the Sun’s energy and all the planets will have unlimited power! You wait! Just wait...”

His voice seemed to catch in his throat. He turned away.

“Yes, I’ll build better robots next time,” Norwyn went on, fiercely. “As soon as I know how my M-Robots worked under the conditions of this test—”

“Excuse me, sir. But you already know that. Maxie and I broadcast each report at the same time that it was recorded.”

Professor Norwyn turned pale. His piercing eyes stared at Greg Bayard furiously.

“Broadcast the results of the tests?” Norwyn’s voice suddenly became low, barely more than a whisper. “But that’s... that’s impossible. There’s no broadcaster here except your normal communications system.”

“There is, sir. A small one, but strong enough to reach the Earth.”

“Here?” Professor Norwyn said fearfully. “Here?”

“Yes, sir.” Greg stepped to the instrument panel and pulled open one of the drawers underneath it. A compact tape recorder lay inside. “This is the recorder on which we tape every test and our results...”

“And the broadcaster?”

“Here, sir,” Greg replied, reaching deep into the drawer to take out a small, brown metal box. “We thought it was part of the recorder at first. Then, in examining the equipment, we discovered that it was a broadcaster set to go on automatically when we began recording.”

Professor Norwyn ignored the broadcaster. He raised his head and gave Greg a stem look.

“My orders to you were very clear, Bayard,” the Professor said. “You were not to snoop around in my equipment!”

“But, sir,” Greg began, “someone put in this broadcaster—”

“I didn’t put it there,” the professor said uneasily.

“Someone did,” Keith Barry said. “And now knows the results of the tests on the robots.”

“There must be more than one of them,” Greg said grimly. “Someone threw the bolt that overloaded



Maxie's circuits..."

"A different man planted the broadcaster when this camp was established," Keith Barry said. "The men here now are from my ship's crew. But the camp was put up by your staff, Professor."

"Are you saying that there is a traitor among my men?" Professor Norwyn asked coldly, his eyes flashing with anger.

"Yes," Keith Barry replied gently. "One among your men, and another traitor among mine."

"And," Dig put in quietly, "possibly a third man who may have given the orders to both."

A hush dropped over the room. They stood about uneasily. In the silence, Maxie tossed and moaned.



## 4 Lost Robot!

IN THE silence Professor Norwyn glanced at Keith Barry and Greg Bayard suspiciously. These two men had been present when the Man-Robot test camp was first established. They were here now.

Greg avoided the professor's eyes. Could these two famous scientists be jealous of each other and, each in his own way, be trying to ruin the other's project?

Keith Barry quietly studied the young technician and Professor Norwyn. The professor, he remembered from his school days, was a good actor. Many a dull lecture was made enjoyable by Professor Norwyn's dramatic tricks. And Greg? Why would he want to do it? Bribed? Then who had bribed him? And why?

The scientist dismissed such thoughts from his mind. It was foolish to even suspect the professor of trying to destroy his own robot. And Greg was Maxie's friend.

The red light over the airlock began flashing and in a moment Dr. Weston's men brought in the stretcher. Maxie was laid on a foam pad and a plastic bubble canopy was fastened in place over him.

The medical aides carried the stretcher into the airlock and closed the hatch behind them. Dr. Weston slipped into his spacesuit.

"I've never had a case like this," he admitted frankly. "I don't know how to treat Maxie or how it's going to turn out."

He put on his spacehelmet and went to the airlock.

"I'm coming with you," Professor Norwyn said, suddenly making up his mind. He put on his helmet quickly and followed the physician out.

Keith Barry broke the silence that followed. "We might as well go, too. There's nothing we can do now except prepare to return home."

"There must be something we can try," Jim said, almost desperately. "We can't give up so easily."

A flush spread over his father's face. "You mean I'm

quitting, Jim.”

“I’m sorry, Dad. I didn’t mean it that way...”

“What other way should I understand it?” The scientist walked to the small round viewport and looked out.

The men were already working, taking down some of the huts. They laid the plastic slats in compact piles and tied them up with special plasticcord.

“Maybe you’re right after all,” the scientist went on after a brief pause. “Maybe I’m just too tired to think straight. Right now, I’d like to go home to Eros for a rest.”

Dig suddenly looked up. The words awoke something in the back of his mind. What was that about taking a rest?

“Greg, you wanted to take Maxie’s place and give him a rest in the hut. Remember?” Dig asked.

“Sure. I might have saved him.”

“Can you take his place now?”

“In the hospital? I wish I could—” Greg’s mouth suddenly snapped shut. He threw a keen look at the Space Explorer. “You mean the robot?”

“Yes.”

Greg scratched his chin thoughtfully. “Of course. What good would it do? I’d be just as lost out there in the dust cloud.”

“We might be able to Bud you,” Dig said. “If we can’t, you can return to your body.”

“How can you Bud me out there?”

“Radicom direction finder,” Dig said. “All you have to do is keep talking.”

“It might be worth a try,” Greg admitted. “I’m willing.”

“We have a spacesled outside,” Keith Berry said. “Would that help?”

“Perfect, sir. I thought we might have to take the *Starover*. A spacesled is easier to handle.”

“All right, Dig. But I’m coming with you,” the scientist said. The weariness had somehow left his face. His eyes were bright with new hope.

Greg sat down in Maxie’s chair. “Each one of these is wired to its own set of remote robotic controls,” he explained. He fastened the bands around his wrists and ankles, then fitted the electrodes to his head.

“Here goes,” he said, lying back in the chair.

“How do you do it?” asked Ken.

“I simply think myself into the robot. The electric current inside my brain is very tiny, but enough to trigger the circuits. Like this.”

He closed his eyes. Instantly his body became motionless. Only the faint movement of his chest as he breathed showed that he was alive.

“He’s there,” Dig said watching Greg’s body.

“Time we were going, too,” Keith Barry said.

They put on their spacehelmets and went through the airlock. Some of the men were beginning to load the packs of slats on the spacesled.

“I need that sled,” Dr. Barry called to the men.

“We’ve got to get this load on board, sir,” a man said.

“Aye, it be a long pull to carry this stuff,” another man grumbled.

“Take it off!”

Two of the men pushed the loads off the sled. The three Space Explorers leaped on board and Dr. Barry followed.

“Fasten safety belts,” Dig ordered.

“Aye, aye.” They hooked the safety lines on their space-belts to ring bolts in the flat metal platform.

“Ken, take the controls.”

“Aye, aye, sir.”

Ken positioned himself at the small control board at the rear of the spacesled. The craft was made of a simple platform placed on several rows of fuel tanks, and a

powerful jet engine. Three rockets in the stem and three in the bow pushed it ahead, braked it, or moved it backward. Single rockets at the sides steered it.

“Blast off, Ken.”

“Aye, aye, sir!”

The men stepped away at a wave of Ken’s hand. The short spurt from the rockets sent the craft skidding along the ground. Then Ken moved the control handle back and the spacesled tilted upwards and shot off into space.

“Set radicomms to maximum range,” Dig ordered. “That includes you, sir.”

Keith Barry chuckled. “Aye, aye, sir.”

Ken steered the spacesled straight across the clear area toward the heavy dust cloud in the distance. The group of asteroids seemed to be in some sort of pocket inside the great cloud. The Space Explorers were used to the solid black of space. Here a uniform grayness cast a ghostly gloom everywhere.

“Report if you hear anything,” Dig said.

The spacesled accelerated with a maddening slowness, plodding steadily ahead on the course Ken set.

Dig and Jim went to the front of the sled and stood there, peering into the distance. They could see the edges of the dust cloud, moving and curling slowly, taking on weird shapes like fog creeping along the ground.

But there was no ground here. No up and no down and only the spacesled to which they clung gave them a feeling of right and left. They felt their stomachs twist within them. It was like falling from a great height, not down, but in every direction at once.

They heard nothing on their radicomms. The first streamers of dust fingered around them. Ken guided the sled closer to the dark gray mass. He began to make a great, sweeping circle along the edge of the dust cloud.

For a long time, no signal came to them. Then Dig motioned with his hand, directing Ken into a slow turn

to the right.

“Did you hear anything?” Jim asked.

“For a second. It’s gone now.”

Ken continued with the turn, moving deeper into the dust.

“There it is again!” Dig cried.

“I hear it, too!” Jim whispered. “To the right, Ken. More to I he right.”

Ken fired a burst from the port rocket, turning the spacesled sharply.

“I hear it,” he said.

“It’s fading out! You’ve swung over too far!”

“Aye, aye!” Ken fired the starboard rocket. The flat nose of the sled stopped moving and then began to swing back again.

“That’s it,” Dig called. “Steady as she goes!”

“On course!” Ken began to fire the stem rockets.

“It’s getting louder,” Jim began to say, then burst out, “A voice! It’s Greg!”

“Greg?” Dig called. “Can you hear me? This is Dig Allen.”

For a few minutes there was no reply. Then weakly, for a distance barely within the range of the radicom, came Greg’s voice.

“I hear you, Dig. Will you be able to find me?”

“Pretty sure of it. Keep talking.”

“I’ve been talking so long, I don’t have any more to say.”

Dig turned his head and glanced at Ken. “We’re going into the thickest part of this cloud. Are you keeping a check on our return course?”

“Aye,” Ken replied.

“Then give it all the rockets have.”

“Aye, aye, sir!” A steady flame began to flare behind the stem of the clumsy sled.



“Greg? Talk and keep talking.”

“All right. There’s something as fishy as the lakes of Venus,” Greg called over his radicom. “This robot wasn’t lost.”

“Not lost?” Dig asked, caught by surprise.

“It was hidden out here.”

“How do you know that?” It was Keith Barry’s voice breaking in sharply.



“Is that you, Dr. Barry? I found an EC black-ball signal stuck to my chest with a magnet.”

“You mean an Emergency Call transmitter?”

“Yes, sir. And hold on to your spacehelmet, sir. It has been set to go on automatically in three months!”

“Someone was coming to look for it in three months?”

“Aye, sir.”

Ken began to slow the spacesled. The radicom was coming in very loudly.

“He must be somewhere close now,” Ken cautioned. “Keep a sharp look-out.”

“Something more you should know,” Greg continued to talk. “We have jets built into our shoulders, in back. That’s how we push ourselves through space. Well, mine—I mean Maxie’s—was set for a continuous five-minute push. Then it was set to brake the forward speed thirty minutes after the jets cut out. That’s enough to take the robot into the thick of the dust cloud!”

“Professor Norwyn was right, after all,” Keith Barry said. “Someone is trying to steal his robots. My Saturn expedition gives him the chance he needs.”

“I see something dark moving,” Greg called. “Coming toward me. I’m going to jet closer. It could be you, or a hunk of rock.”

“Don’t get your head knocked off,” Jim cautioned.

“This robot can take a hard bang,” Greg said, laughing. “Anyway, it’s mighty lonely here. Even a rock would be company.”

“Something coming up ahead,” Dig said.

“It’s me,” Greg called. “I see your spacesled!”

A moment later the robot bumped against the metal side of the sled. Jim and Dig reached out and grabbed him by the arms.

“Good to see you,” the robot said. He looked at the scientist and the three Space Explorers with his large crystal eyes. “I was ready to give up when I heard you

call.”

Ken fired the port rocket and swung the spacesled into a wide turn. They seemed suddenly tired, too tired to talk. They watched the thick dust slip by them as the sled plodded along on the return journey.

After a while, the dust began to thin out. They emerged into the open and saw in the distance the cluster of asteroids.

“That’s where we tested the robots,” Greg pointed out. “We got some pretty hard bangs. You know what I mean...”

The Space Explorers looked at the mass of huge rocks so densely packed that they appeared to be grinding against each other.

“We know what you mean,” Jim answered with a laugh. He spoke for all of them.

## 5 The Rings of Saturn

THE SAFE return of Maxie's robot brought a burst of enthusiastic activity from the crew members. The men worked without rest until the camp had been taken down, the spacehuts stored in the cargo hold of the *Beagle*, and the delicate electronic equipment carefully packed for the long voyage to Saturn.

While the last of the crates was being brought on board, Keith Barry met with the Space Explorers in his office. It was a small cabin which served him as work room and home.

"What I am going to tell you is not known by any member of the crew," the scientist began. "Of course, Professor Norwyn knows. He has known from the first and has made mining in the rings of Saturn possible."

The three boys waited quietly for him to continue.

"You know, of course, that Asteroid Eros, where Space Research has its headquarters, is really a giant spaceship. Made out of a real asteroid, it came across thousands of light years from some forgotten star. The journey was very long. The people we found living inside Eros had forgotten their old science; even that there was an *outside* to their strange world."

The three boys knew the story of Asteroid Eros for they had played a key part in discovering its secret.

The scientist continued. "But how did this spaceship move? It had no rockets of any sort."

"You said once you suspected that it moved by some magnetic means," Ken said. "Along lines of magnetic force..."

"And I've spent a long time trying to find some clue to that theory of mine," the boys' father said. "Finally, I discovered thousands of metal plates on the surface of Eros, or rather, buried just a few inches below the surface."

"The clue you were looking for?" Dig asked the question, but all three of the boys were leaning forward tensely with the same thought in their mind.

The man nodded, then leaned back in his chair and closed his eyes for a moment. He was tired and showed it in almost every movement of his body.

“Yes,” he said. “The clue. I tested this metal and found that it could take on very strange magnetic powers. A slight electric current raised a shell of electrons over the metal. These electrons were not the same kind we find in atoms. They were negative matter.”

“Negative matter?” Ken asked, his eyes lighting up.

“They pushed everything away. Stones, air, heat rays, even light itself! A shell that nothing could go through formed over the piece of metal I cut from one of the plates.”

“Then if this metal had an ordinary electric current going through it,” Dig said slowly, choosing his words with care, “it could push against light? Even starlight?”

“Yes.” The scientist paused for a moment. “And when I reversed the current, switched the wires around so that the electricity flowed the other way, an electron shell was formed that pulled everything to it. A shell of what I call positive electrons—positive matter.”

“But all matter is positive,” Ken insisted.

His father smiled. “We’re getting back to my old, old argument with Professor Norwyn. I said, years ago when I was his student, that all matter is a balance of positive and negative. The inside of the atom, the nucleus, has a positive charge. The electrons whirling around the nucleus have negative charges.”

“Who won the argument?” Jim asked with a grin.

“The newspapers gave” it to me,” the man said. “But only because they felt it made a good story. What were the headlines?” he closed his eyes and tried to remember. “Oh, yes. *Student Shows Up Professor!* They were completely unfair, of course. I did not win. But I’m afraid Professor Norwyn might still hold it against me.”

“He’s too big a man for that,” Jim said. “I don’t particularly like him. A cold fish, sort of. But, after all, he’s a great scientist.”

“We haven’t much time,” Keith Barry said. “I want to

get back to my story.”

“I won’t interrupt, Dad,” Jim promised.

“Now, I think spaceship Eros traveled by means of these plates. A positive charge in the front plates pulled it forward. And a negative charge through the stem plates pushed it.”

“Then it might have traveled at the speed of light!” Dig cried.

“Very likely.”

“If we build a ship out of the same metal?”

“We might be able to travel as fast as light, too.”

“Why don’t we?” Jim asked.

His father smiled. He leaned back and rested his head against the chair for a few seconds, then sat up again.

“We have to make this metal first.”

“But we’re going to mine it on Saturn,” Jim cried, unable to sit still in his excitement. “It shouldn’t be hard—”

Dr. Barry held up his hand. “I’m very tired, boys. And we only have a few minutes before blast-off. Let me explain our problem.”

“Sure, Dad.” Jim threw himself into his father’s bunk and curled his legs under him.

“I found that this Asterian metal was not a pure one. It was made of a mixture. Iron atoms, copper, sulphur, carbon traces... elements we have on earth. But I could not put these together to make the metal. I tried in a thousand different ways. Then we translated a textbook from the Asterian language and found that they used a methane gas to fuse the metal together.”

“Then you have everything you need,” Ken nodded. “There’s plenty of methane on Earth...”

“No, we were completely stopped,” the scientist said. “You know that carbon is used on earth to harden steel. Methane is a gas made up of one carbon atom and four hydrogen atoms.”

The boys watched tensely. They were following the man’s words closely. Their alert minds were trying to

leap ahead to dream wild, exciting scientific discoveries.

“This particular methane gas is made of a heavy carbon atom with heavy hydrogen atoms. This gives the metal its very special quality. The methane we need is called Methane-X, and the Asterian metal has been named Metalex.”

Jim brushed the falling hair back from his eyes in his usual quick gesture. He looked at his father in the silence that filled the cabin.

“Methane-X is what we’re after and it can be found frozen in the rings of Saturn,”

“That’s the story,” Barry said. He opened a drawer in his desk and brought out a plastic box. He tossed it to Dig who caught it deftly with a sweep of his hand.

“What’s this?”

“A chart of the rings,” Barry said. “Captain Boyd Allen set up an advance camp for us. Spacehuts, food, power plants—everything we’re going to need. It’s at the edge of the Bright Ring, the second or central one.”

“Why give this to us?”

“Your ship is much faster than the *Beagle*. You’ll reach Saturn before us. Take up a position in the space-gap between the first and second rings, the Cassini Division, and wait for us.”

“Aye, sir.”

A buzzer sounded throughout the spaceship. Barry glanced at the boys, raising his eyebrows questioningly.

“All ready? We’re about to blast off.”

The three boys rose to their feet.

“See you in Saturn’s rings, Dad.”

The boys put on their spacesuits. Keith Barry looked at the youngsters with pride. Two were his children and Dig was their best friend. But he felt as close to the red-haired boy as though he were his son, too.

“I have given orders for the spacesled to be put aboard the *Starover*. Since you’ll be there first, I expect you’ll begin exploring the area.”

He walked with them to the door, gave each a quick,

warm hug, then watched them descend to the airlock.

The last of the crew members were filing into the ship when the Space Explorers reached the ground.

“Space sled stowed on board your ship,” one of the men told them. “Chiefs orders.”

“We know,” Dig said. “The luck of space ride with you.”

The last man looked down from the wire ladder. Through the round glassteel of his spacehelmet they saw the grim face.

“The luck of space be with us all,” the man said.

The Space Explorers walked slowly toward their ship. They felt the ground begin to shake under their feet and turned. The *Beagle* was nosing upward on a red, fiery tail that pounded against the rocky surface. It picked up speed. The tail streamed behind like the tail of a comet.

They watched as the chubby laboratory ship disappeared into the dust cloud. Her rocket flame could be seen for a long time after the ship itself became invisible. Then it was gone.

They climbed into the *Starover* and stored away their spacesuits. They exchanged only a few words as they took their places at the controls.

Their minds were filled with the thrill and excitement of exploration and discovery. They sat at their controls, not moving, day-dreaming...

The M-Robots... with these they could walk on planets too dangerous to explore with human bodies...

And Metalex... a spaceship made of this strange material could open the way to the distant stars...

Dig roused himself from his dreams. He saw the quiet, thoughtful smiles on the faces of his two spacemates and guessed the thoughts running through their minds.

“Stand by for blast-off!” he commanded.

Jim and Ken looked up, startled. Then seeing the grin on Dig’s face, they laughed.

“A fellow can think...” Jim muttered sheepishly.

Dig set the power gauge, then the timer for a two-second burst.

“Blast-off in five seconds,” he called out. “Four... three... two... one... zero!”

He pulled back on the power release lever. The *Starover* shuddered as the compressed flame surged through the rocketubes.

The ship rose on its fiery tail, slowly at first, then faster and faster. Dig cut power off to hold back the spaceship’s speed. The dust cloud, almost within seconds, folded around the viewport as the ship plowed into it. The scrape and hiss of sand and pebbles began on the hull.

From the radarscope, Ken called out, “Guide beam directly astern. Course, steady as she goes.”

And Jim looking at the screen of the magnascope, laughed, “Grains of dust, beautiful and big.”

The boys had not realized it, but the dull grayness within the dust cloud and on the cluster of asteroids had cast a gloom over them. They were used to the clean, brilliant light of the Sun... and the solid blackness of deep space with its thousands of distant stars.

As they began to emerge slowly from the dust cloud’s gray into the black of space, their spirits rose.

“Saturn ahead!” Dig shouted, looking through the viewport.

Ken left the radarscope, switching it to automatic, and kicked himself out of his seat. With no gravity to hamper him, he floated gracefully across the cabin. Catching the co-pilot seat, the blond, stocky boy pulled himself down.

Dig was checking the numerous dials that curved around him on the instrument panel. His fingers punched a series of buttons as he fed the information into the computer.

“Present position,” he called out. “Two hundred fifty million miles from Earth.”

“Asteroid Belt thinning out,” Jim called from the magnascope. “We’re pulling out of it.”



“We’re not in the clear yet,” Jim warned. “Plenty of asteroids and junk ahead.”

“Aye, aye,” Dig called. “Keep a sharp lookout.”

He did not reduce the speed. A feeling of impatience was growing in him. Saturn, the great ringed giant I Second only to Jupiter in size!

“Present distance, Saturn to the Sun, 889 million miles,” Dig called as he punched the information into the computer.

“What’s our course and speed?” Ken asked.

“Wait.” Dig’s fingers played swiftly over the buttons as he fed more figures into the computer. Then he pressed the starting button.

Ken took the plastic tab that slid out of a slot in the control board.

“Direct distance from our present position to the present position of Saturn is 546 million miles!”

Jim whistled softly. He muttered in a low voice, “We’ve got a trip ahead 1Wow!”

“Intercept course distance from our position to Saturn is 443 million miles. Intercepting vector, 80 degrees.” Ken looked at Dig. “That’ll save us a lot of time.”

“Saturn is moving at 21,600 miles an hour in its orbit around the Sun. We’ll take the 80-degree course and cut across inside Saturn’s orbit circle to meet it.”

“Aye, aye,” Jim cheered. “The sooner we get there, the better I like it.”

Dig recorded the course on tape, then reeled it into the automatic robo-pilot. Then, with a sigh, he looked through the glassteel viewport. Jim and Ken moved up to stand close to him.

Saturn glimmered far ahead, an awe-inspiring sight. Silently the three boys watched the distant silvery globe, surrounded by the great rings that reached spaceward for fifty thousand miles above the planet’s surface.



## 6 The Cassini Space-Gap

THE breath-taking view of Saturn lasted for only a few minutes. The automatic controls began to turn the *Starover*, pointing its graceful bow along the invisible line the robo-pilot had drawn for the ship to follow across millions of miles of emptiness. Soon the blackness of deep space with its thousands of bright pin-point lights of distant stars was all that could be seen in the curved glassteel of the viewport. Still the sight held the boys silent with awe.

“Anybody would think you’d never seen stars before,” Dig grinned, breaking the spell at last. “Come on, let’s have an instrument check and set our ship’s routine. There’s a long journey ahead.”

The three Space Explorers moved to their positions at the control panel and ran through the careful check of dials and gauges that reported the condition of every part of the *Starover*’s complex machinery.

“I’ll take the first watch,” Dig said when they had finished. “Ken, you take the second.”

“That’s fine with me,” Jim said. “I’ll have eight free hours ahead to loaf.”

“No loafing,” Dig said. “I don’t want any spacegoofy companions on this trip. Get busy on your studies.”

The two brothers kicked out of their seats and floated gracefully toward the door.

“You’ll have to give up those free-fall acrobatics for the next few watches,” Dig chuckled, as his friends floated through the door. “We’ll be under fairly heavy acceleration.”

It was natural for Dig Allen to take the leadership of the group. He set the pace and planned the work on board ship. In times of danger, he took stem command and guided Jim and Ken.

When he was sure that his companions had settled themselves below, he switched on the intercom. “Power on in thirty seconds,” he called. He punched the “In-flight” button on the robo-pilot, set the power lever, and

waited.

In a moment, the deep-throated roar of the atomic engines filled the ship. The familiar thrust of acceleration pushed Dig against the foam-pad cushioning of the pilot's seat. The *Starover* leaped ahead, straining toward its meeting with Saturn, millions of miles away.

Dig listened to the steady pounding of the great engines. At the stem of the ship, the powerful atomic pile produced the intense heat that smashed hydrogen atoms into fast moving particles. These shot through the rocketubes as a jet plasma that hurled the ship ahead.

The red-headed Space Explorer knew well the sounds of a ship in space-flight. Compared to him, the two Barry brothers were new to space. Dig had grown up among spacemen and spaceships. Left motherless when he was still a child, the boy was brought up by his father, Captain Boyd Allen of the Space Explorer Corps.

At an age when other boys were just beginning to memorize the atomic table, Dig had already earned the respect of veterans for his courage and spacemanship.

The three boys met when Jim and Ken were on their first space flight. The brothers, educated on Earth, were on their way to meet their parents, Keith and Jane Barry. From the first, Jim and Ken liked the quiet redhead. He in turn liked the two brothers. They quickly became inseparable.

Without realizing it, Dig had been daydreaming, remembering his first adventure with Jim and Ken. That had been when they discovered Asteroid Eros, with its treasure of scientific knowledge. Space Research, led by Keith Barry had now only begun to tap the secrets of the long-forgotten Asterians who had built Asteroid Eros. To Dig, it seemed only a short while before Ken climbed into the control room and dropped into the seat beside his.

"Second watch reporting on duty," Ken said. "Everything ship-shape?"

"Course set. Speed climbing normally. Steady as she goes," replied Dig.

Ken shifted his position on the foam-pad cushions and grunted. "After the light gravity at the robot test site and then the time in free fall, this acceleration makes me feel as if I weighed a ton."

Dig yawned and stretched. "You might as well get used to it," he said. "We'll be increasing our speed for many hours yet. But when we reach cruising speed, we'll shut off the power and we'll be back in free fall again."

"What if we didn't shut off the power when we reached cruising speed? What if we kept right on blasting?" Ken asked.

"We'd just keep on gaining speed," replied Dig.

"Until—?"

"Until we reached the speed of light, if the ship could do it. But no engine yet built by man is efficient enough to push a ship to that speed."

"What would happen if we could reach the speed of light?"

"We won't know until we try it," Dig said. "Right now, we only think we know what'll happen. We won't find out if we're right or not until we build a ship that *can* do it."

"Now, suppose..." Ken began arguing seriously.

"Not on my free time," Dig yawned again. "I'm sleepy. If you really want to know, I can suggest a couple of tape-books for you."

"Oh, I just wanted to talk about it..."

Dig glanced at the chronometer. "I should have been off to sleep ten minutes ago." Then he added before he left the cabin, "Course set. Steady as she goes."

"Aye, aye, sir. Course set. Steady as she goes."

When they were not actually on watch, the boys made routine inspections of the ship, studied, ate and slept. In the control cabin the speed indicator crept upward, hour after hour.

It was again Ken Barry's watch when at last the cruising speed worked out by the computer was reached. Abruptly, the powerful engines came to a stop.

Ken checked the plastic tab in the robo-pilot, and reported to Dig on the intercom.

Each of the other boys was aware of the change, as well. A silence filled the ship and the tiresome weight they had felt while accelerating was gone. Dig, awakened in his bunk by the sudden silence, reached for the intercom switch to answer Ken's call. The movement rolled him clear out into the center of his cabin, where he floated, laughing at his own forgetfulness.

In the *Starover's* galley, Jim was lifting a cup of hot chocomilk to his lips when the engines stopped. He paused, and the chocomilk, gathering itself into a liquid ball, drifted upward past his surprised face.

"I was just getting used to drinking out of a cup again," Jim complained as he relieved Ken on watch a few minutes later. "Now it's back to squeeze-tubes—at least until we reach Saturn."

"That's all right with me," laughed Ken. He kicked free of the pilot's chair, bounded lightly to the ceiling and back to the floor, then turned a double somersault in mid air as he went through the door. "Just call me 'Free-Fall Barry!'"

The great ship seemed to hang motionless in the blackness of space, yet it was racing toward Saturn at a fantastic speed. For eleven days, the boys watched the ringed planet in the viewport. Only as Saturn's shape grew larger and larger were they aware that the *Starover* was moving at all.

Dig was at the controls when they finally reached Saturn's mighty orbit around the Sun. All through the day, they had been braking their speed. Now, moving a little slower than the planet, they watched the huge globe catch up to them.

Jim shook his head as he stared at the great white planet with its fantastic sweeping rings.

"How are we ever going to locate that camp?" he asked.

"Captain Allen placed beam-guides," Ken said. "We'll

pick them up.” He switched the directional indicators into the radarscope. “Ready to pick up signals,” he called to Dig.

As Saturn’s north pole appeared below, Dig increased the speed of the spaceship. Presently the planet and the ship were moving at the same speed. Then Dig fired a steering blast of the rockets and put the *Starover* on a course for the edge of the outer ring.

Jim watched through the viewport, nodding wisely as he recognized the various parts of the rings.

The round silvery globe of the planet seemed to float within the whirling rings. Big as Saturn was, the rings measured almost 170 thousand miles across.

“Gosh! I can almost see them grinding and crashing and smashing into each other,” Jim said.

The outer ring was made up of huge chunks of frozen gas, some of them larger than the largest of Earth’s icebergs. It was a mass of churning ice and rock that stretched for 11 thousand miles inward to the planet.

Then came black, empty space separating the outer ring from the next one.

“That’s the Cassini Space-Gap,” Jim said. “It’s 3,360 miles wide. Just think. There’s enough room in that space for Mercury—and it wouldn’t touch the edges of the first or second rings!”

Dig chuckled. “I see you weren’t wasting your time this trip. You’ve been studying Saturn.”

“Why not? We’re going to poke around in those rings,” Jim said, sweeping his hair out of his eyes with a quick gesture of his hand. “Besides, what’s wrong with doing a little studying, eh?”

“Nothing,” his brother said. “You ought to do more of it.”

“Well, the second ring is also called the Central Ring and sometimes the Bright Ring. It’s 18 thousand miles wide. And then...”

“The camp is somewhere along the edge of the Central Ring,” Dig interrupted, his face serious as he

studied the view before him.

“It’s going to be like looking for a needle in a haystack,” Jim complained. “Even with a guide beam somewhere in there. You know these rings are anywhere from 50 to 100 miles thick?”

Dig nodded. He turned to look at Ken.

“Anything on the radarscope?”

“Not yet.”

“Keep listening. Jim’s right, in a way. Only it’s more like finding a special grain of sand in the Sahara Desert.”

Jim groaned and switched on the extra listening equipment.

“I might as well try to pick up the signal. too.”

“It should be a long range...”

“Quiet!” Ken cried. “I’m getting something.”

Quickly his hands flew over a series of switches. He turned the directional dial. The signal increased in loudness.

“Well?” Jim asked impatiently. ‘

‘I’ve got it!’”

“Course?” asked Dig.

“Wait.”

“Come on,” Jim hurried his cautious brother. “We’re so close to the ice-floes we’re almost skimming them.”

“We’re still a few thousand miles above them and pretty safe.” Dig laughed.

“Swing into the Cassini Gap.” Ken called out.

“Aye, aye, sir!” Dig called out.

He gave a short burst from the rockets and the *Starover* passed over the edge of the Central Ring, slipping into the space-gap.

“Brake slowly.” Ken called out.

Dig did so until the spaceship came to a stop almost half way down along the thick stream of ice and rock



mountains.

“Move ahead slowly.”

The *Starover* had matched speed with the whirling ring. Dig increased the speed and the spaceship began to creep ahead.

“Signal clear and sharp now. Match speed with the ring!”

“Aye. aye, sir.” Dig slowed the ship down. When the distant mountains of ice seemed to stand still, he cut off the engines.

“That’s it,” Ken said with a sigh. He looked up at his two spacemates. “We’re on a direct line with the camp.”

The boys crowded at the viewport and stared at the fearful mass of the ring.

“It’s not really as thick as it looks,” Dig said. “We can bring the ship closer. You’ll see space between those flying icebergs.”

He started the engines and brought the spaceship closer. There were empty spaces in the ring, but not as many as he had expected.

“Signal’s coming from the thick of it,” Ken said, looking doubtfully through the viewport. “Can the camp really be in there?”

“Of course,” Dig said. “Someone put the beam-guide to signal the location...”

“What do you mean ‘someone’?” Jim snorted. “It was your father. Who else but Captain Allen would have the nerve to creep into that mess?”

The three boys put on their spacesuits, then went to the cargo compartment where the spacesled had been stored. Before opening the outside hatch, they made sure the room was sealed air-tight.

A rush of air whipped out with them as the spacesled was pushed through the opening. For a moment, the clumsy craft bumped against the hull of the *Starover*. Then Ken, at the controls, released a slow blast and the sled began to move toward the massive layers of the ring.

A strange feeling came over the three boys. This was not like being in space. The sensation of falling was there, but it did not disappear after a few minutes as it did in deep space. . the sight of the great ball that was Saturn and the vast masses of ice told their brains that they were moving *down*, hut their bodies felt no gravity.

Slowly the sled approached the grinding ice. As they moved into the thick mass, the boys felt like miners dropping down a mine shaft.

The spacesled bumped the smaller pieces out of its way. They steered around icebergs too large to be pushed aside.

Jim and Dig, listening through their radicom, found the signal growing steadily louder and clearer. Ahead, through the swirling rock and ice, they could see a great satellite.

“It’s almost like a small moon,” Jim said. “Signal seems to be coming from it.”

Ken held the sled hanging above the satellite. Beneath, the surface was solidly white, with a faint sprinkling of snow crystals over hard ice.

“Signal directly ahead,” Jim called out.

“There’s something out there.” Dig pointed.

“I see it.” Ken steered the spacesled toward a small plastic flag on an upright marker pole. “Captain Allen thought of everything. Radio and visual guides.”

Another marker appeared a little farther on, a third then, and a fourth. Ken guided the sled over them until, unexpectedly, they saw a group of spacehuts covered with fine snowflakes.

The spacesled was brought down a short distance from the huts and the three boys jumped off. A shower of snowflakes rose around them, then began to settle slowly.

“There must be some kind of gas atmosphere all through here,” Dig said, pointing at the white frost beginning to form on his spacesuit.

“Let’s get acquainted with the comforts of our camp,”

Jim suggested over the radicom.

He led the way through the street formed by the two rows of huts. Some had airlocks or were joined to other huts by airtight passages.

“Well, the place is ours,” Jim cried, waving his hands. “At least until the *Beagle* arrives.”

“I don’t think so,” Dig said. He spoke in his usual calm manner, but there was a sudden tension in his voice that made Jim and Ken whirl about quickly.

Dig was looking down at the snow near one of the spacehuts.

“What are you looking at?” Jim asked.

Even as he asked the question, his eyes caught the clear mark of fresh footprints in the snow.



## 7 Into Saturn's Rings

THE first thought that entered Jim's mind when he saw the footprints was "They're mine. I walked ahead and must have wandered closer to the hut."

But Ken lowered himself slowly to his knees and gently brushed aside the hoarfrost with his gloved hand. He peered at the print for a few seconds.

"Under the frost covering," Ken said over the radicom, "the snow is pressed in hard. None of us made this."

He pressed his spaceboot beside the print and then compared the two.

Dig, watching him, said, "Someone a lot heavier than you made that. There's very little gravity here. Our prints are about half as deep as that one."

"Bigger than my spaceboot," Ken remarked thoughtfully. He straightened up and looked at Dig. "Big enough to be a robot's, except that there are no robots here."

Jim said, nervously, "Well, we've got company, whoever—or *whatever*—it is."

"But that isn't possible." Ken looked about, turning in a slow circle. When his eyes returned to the other two boys, he said, "Could there be a form of life here? In the Rings of Saturn?"

"I doubt it," Dig said. Above them for twenty solid miles stretched a huge ice field. On the other side of the satellite, far under their feet, the space-drifting pack of ice extended even farther. "Whoever made these prints came from Earth or one of our planets."

"I'm not going to just stand around," Jim said. "Let's follow and see where these prints lead."

The footprints were human-like. The toes pointed toward the hues airlock. Farther on they turned to the next building. One behind the other, the three boys walked beside the mysterious footprints.

They went from hut to hut, along the side of the

camp, then turned around the last one and pointed away from the camp.

“Shall we follow?” Jim asked.

“Yes.”

They checked the camp’s guide signal on their radar, then struck across a flat, snow-covered area. An enormous silent world of white surrounded them. Overhead the white was broken by jagged satellites of brown or gray or flecked with some reddish metal.

“This place does look like some sections of the Asteroid Belt,” Ken pointed out. “Only a lot thicker.”

They walked until the curve of the surface hid the camp behind them. The footprints were clearly impressed into the snow, far apart as though whoever made them was big and used to the light gravity. It took two or three of the boys’ steps to match one stride of the mysterious footprints.

Gradually patches of earth and rock began to appear in the snow. A little farther on they saw stubby rock formations rise above the horizon. The surface became gray stone and the footprints disappeared. The three boys stopped. There was no more trail to follow.

“He went into the mountains,” Dig said, looking at a distant formation of rock. Between the peaks, in valleys and ravines, the ice appeared solid, like a glacier.

“Might as well get back to camp and see if any damage was done,” Ken suggested.

Before they could retrace their steps, they saw, high overhead, a great round mass of ice moving rapidly. It swept up the smaller pieces before it, or pushed aside large masses. It seemed to drop in zig-zag motion as each collision bounced it into a different direction.

Suddenly it was in the clear. Before the boys realized what was happening, the mass of ice struck the surface.

They felt the ground beneath their feet shake. A cloud of powdered snow and ice shot upward, then slowly disappeared. A large mound of ice stood on the ground where the collision occurred.

“Just like a snowball sticking to a wall,” Jim said, his eyes fixed on the hill of white.

“So they do crash into each other,” Dig said, looking up at the shifting river of satellites. “We’ll have to watch out!”

They returned to the camp and after inspecting the spacehuts, settled in one. The intruder, it seemed, had not gone into the huts but only looked over the camp.

For the next few days, the Space Explorers used the sled to map the satellite. They saw no more footprints or signs of any habitation though they hovered over the mountains and flew for hours along the flat fields of ice and snow.

The satellite was immense, the boys found. It measured almost two hundred miles in length and sixty miles at its widest point. The camp was located on the side facing the Cassini Space-Gap where the ring began to thin out. But the opposite side of the satellite formed part of a huge ice pack, and so close that the Space Explorers did not dare circle the satellite for fear of being crushed among the grinding and colliding masses of ice and rocks.

A day after they had returned to wait on board the *Starover* the boys received a signal from the *Beagle*.

“We are cutting across the Central Ring toward the Gap, moving down from the north pole,” reported *Gus Nielsen*, youthful captain of the laboratory ship. “We are picking up your signal.”

An hour later, the Space Explorers saw the squat form of the *Beagle* drifting into the Cassini Space-Gap. When the two ships were close to each other, magnetic grappers shot across the space separating them.

The round discs clamped to the sides and the plastiwire lines were pulled tight. Soon the hulls of the two spaceships were almost touching.

On the *Beagle*, hatches were sliding open. Crew members in their bright-colored spacesuits pushed boxes of equipment out. The crates floated in space, close to the hull of the ship.

One of the crew members jetted over. His magnetoes clicked to the *Starover's* hull. He looked into the viewport, grinned and motioned to the spacesled.

"They need the spacesled more than we do," Jim said, waving his hand at the man. The man nodded and clumped away to take the sled.

The spacesled was ready to leave with the first load when the three boys emerged from the airlock. In clear plastic cases, the golden figures of the two robots were lashed to the sled.

Ken called over his radicom, "Looks like they're taking the robot equipment first."

A man on the sled picked up the words and replied, "We'll have it set up and ready to go in an hour, boys."

He waved his hand and the sled shot away from the two spaceships. In a few minutes it was gone, hidden from view by the floating pieces of ice.

The boys turned and entered the *Beagle*. Inside, all was confusion and hurry. But in Keith Barry's small office, a quiet, sober meeting was taking place.

"Just in time," the scientist said as the three boys crowded into the room. "We have a problem here and I think you can help."

Professor Norwyn turned his large, white-haired head and stared owlshly at the boys. Greg Bayard, sprawled out on Keith Barry's bunk, waved his hand and smiled.

"What the chief means," he said cheerfully, "is that we need someone to take Maxie's place."

"How is he?" Dig asked.

"Fine but a little wobbly on his feet."

"Professor Norwyn won't allow Greg to go out alone," Keith Barry explained. "At least not until we know how conditions are out there."

"The Professor is right," Dig said. "We explored the area. Pieces of ice are so thick they rub and crash into each other all the time."

"You see? I was right!" Professor Norwyn stood up



and leaned his gnome-like body toward the scientist.

“But if Greg will show me what to do,” Dig said quietly, “I’ll go with him.”

“We can take turns,” Jim and Ken cried in the same instant.

“There you are, Professor,” Barry smiled, looking at his old teacher. “Three replacements for Maxie.”

“All right,” the professor grumbled. “But I won’t be responsible.” Shaking his head, Professor Norwyn left the tiny cabin.

“That’s settled,” Greg said, getting out of the bunk. “Let’s get started.”

Dig handed the map of the satellite to Greg.

“We thought this might help?”

Greg looked at it, frowned and passed it on to Dr. Barry.

“Where do you think we’ll find this Methane-X you want?”

“Not in the rock or earth sections. More likely on the other side of the satellite.” He pointed to a part of the map marked with the symbol for ice. “Probably here. It’s a frozen gas.”

Greg nodded and took the map which he slipped into his pocket.

“See you at the camp.”

The boys followed him out of the cabin and to the airlock where Greg picked out his spacesuit. He put it on while the Space Explorers clamped on their helmets. Outside, the spacesled was returning and crew members were getting the next load ready.

Loading was simple. The men sent the crates floating to the sled with a simple push. Others caught the cargo and arranged it neatly on the sled’s platform. When the sled was ready to blast off, Greg and the three boys piled on top of the cargo, holding on with magnetic grips as the clumsy craft began to pick its way through the drifting satellites.

“How do I get into the robot,” Dig asked.

“You *think* yourself into it,” Greg replied.

“*Think?*” Ken asked. “Just like that?”

“What happens inside your brain when you think?”

“He doesn’t,” Jim murmured in a low voice. But the words came through the radicom earphones with startling clearness.

Ken ignored his brother’s joking remark. “An electric current rushes through the brain. But a very tiny one.”

“It’s enough,” Greg said, “to be picked up by Professor Norwyn’s electronic equipment. It starts the circuit and there you are—inside the robot.”

“And to get back?” asked Dig.

“*Think* yourself back and the electronics take care of the rest. Simple?”

“What about moving around? Walking, touching... things like that? Or talking?”

“How often do you say to yourself, ‘I’m going to sit down’ or ‘I’m walking’ or anything you do? You just do it and your brain sends the right commands to the muscles of your body. The robot works the same way. Just do what you want to do. Every thought inside your brain releases a slight electrical current. Those currents are picked up and translated into signals to the robot.”

So absorbed were the boys in Greg’s information, they did not notice that the spacesled was already gliding in to a landing beside the camp huts.

“Hey! We’re here already!” Jim cried and jumped off the sled.

One of the men pointed out the control hut to them and they went inside through the airlock. The electronic equipment was already arranged neatly along one wall. In front of it were the two reclining chairs. The two golden robots stood stiffly against the wall.

An engineer was hooking up the last connections.

“Five minutes more,” he said. “You’ll be able to go out for a little walk.”

They took off their spacesuits and stowed them away in a locker near the entrance.

“By the way,” Greg said. “Dr. Barry has been showing me how to test for Methane-X. It’s simple.” He opened a small case and brought out a sharply pointed plastic spear. “You stick this into the ice. That’s all.”

“That’s all?” Dig asked, raising his eyebrows.

“Well, it’s gray now,” Greg said. “If there is Methane-X, a chemical change takes place and the stick will turn a bright red.”

“It is simple,” Jim laughed.

“All set,” the engineer said.

Greg pointed to Maxie’s chair. “You’ll be first, Dig.”

Carefully, Dig sat down.

“Clip on the wrist and ankle bands.”

“Aye, aye, sir.”

“Now the head electrodes.”

Dig did so. He lay back in the soft foam pad and the back of the chair went down slowly. He found himself looking up at the ceiling of the hut.

“And now?” Dig asked.

“Now think yourself into the robot,” Greg chuckled. “Think something like... *Presto! I want to be a robot!* Or... Into the robot! And that’s it.”

Dig lay still for a moment. He heard Jim and Ken shift uneasily, the magnetoes of their boots scraping on the hard floor. He took a deep breath and looked straight up at the ceiling.

“*I want to be in the robot!*” he thought to himself.

Nothing happened.

Then the hair rose stiffly on his head. Or felt like it.

He was not looking at the ceiling anymore. He was staring down at his own body lying strangely pale and motionless on the reclining chair.



## 8 Search for X

“THAT’S you in the chair, Dig.”

The words appeared clearly inside the boy’s mind but Dig recognized Greg’s voice. Dazed for the moment by the change, he looked at the motionless body in the chair beside his own.

“I’m really here beside you,” Greg’s voice said.

Dig turned to face the inhuman face of the golden robot. He heard a chuckle but the expression on the robot’s face did not change.

“Queer feeling, isn’t it?”

Dig nodded. “I seem to hear your voice inside my head.”

“We have three ways of communicating,” Greg’s robot explained. “By sound, like human beings do, also by radicom... and by a special wave length with each other.”

“How do I switch from one to another?”

“Just *think* of the way you want to speak, then speak.”

“And they can’t hear *us*?” Dig swept his large crystal eyes around the room.

“No.”

Dig laughed softly. “Look at Jim and Ken! They’re watching the body on the chair and not me....”

“That’s you, to them,” Greg said. “They don’t realize you’re a robot now.”

“Want to know something, Greg? I don’t realize it either.”

“Well, you might as well talk to them.”

Dig stepped away from the wall and, chuckling, called, “Hey, Jim... Ken? I’m over here.”

The two boys whirled about, their faces turning pale. They eyed the golden robot before them, turned to the still body on the reclining chair, then back again to the

robot.

Jim shook his head. "Gosh! I can't believe it, Dig."

"There's two of you now... I mean, you on the chair and you in the robot," Ken said, as bewildered as his older brother.

"I saw Greg do it, of course... but seeing you do it," Jim looked at the robot. "Well, I'll have to get used to it gradually."

Greg's robot came forward. "You go ahead and get used to it. Dig and I are going out."

The robot opened the case containing the testing spears and took two of them out. He tossed one to Dig. Then he picked up a bundle of markers.

"We'll need these to mark our trail."

Dig found walking as a robot easier than in his spacesuit. Whatever mechanism he had inside his robot body, it enabled him to adjust to differences in gravity much more quickly than he could in his own body.

The men were moving the crates and packing cases into the huts as the robots walked down the street formed by the two rows of buildings.

"Hey, robots!" one of the men called over his radicom. "What's Cookie going to make for your supper?"

Another man answered, "Hey, matey! A bowl of grease with a dash of oil be what they want for supper."

The laughter of the crew members sounded through the radicom earphones built into Dig's robot head. The boy joined in the laughter good-naturedly, then followed Greg out of the cluster of spacehuts.

"We'll look at the mess of snowballs on the other side of this satellite," Greg said, his powerful metal legs striding quickly across the flat, white surface.

"Snowballs?" Dig repeated, chuckling softly. "I'd say they were icebergs."

When the two robots reached their destination, having covered some twenty Earth-miles, they stopped and looked over the mass drifting in space above their

heads.

“Captain Allen said we can find Methane-X in there,” Greg said.

Dig looked upward. It was as if a gigantic glacier had been crushed into millions of pieces of every size and shape. The lumps of ice were flowing slowly, crashing and pushing against each other.

“Right into it, and maybe through it. It’s not going to be an easy job—unless we’re mighty lucky. Know what that stuff is?” Greg pointed above his head.

“Mostly methane gas frozen solid. And ammonia and maybe some water...”

“And a few chunks of hard rock,” Greg said. “We want Methane-X. That X is going to give us some trouble, I think.”

They stood quietly for a few minutes and surveyed the weird scene with their round crystal eyes. It was strange to see the endless stream of frozen pieces of gas crash and collide and hear no sound through the vacuum of space. Sometimes they struck with such force that the shattered pieces spread outward like the petals of a flower. In other collisions, the two masses of ice would fuse to form a mountainous iceberg.

“When do we start to work?” asked Dig.

“How about now?” said Greg.

“Why not?” Dig shrugged his robot shoulders.

“We’ll jet from one large piece to the next,” Greg said. “Safer that way, I think.” He pointed with his golden hand. “The ice doesn’t look as thick over that way. We’ll see if we can crawl or push our way in.”

“All right.”

“You know what to do? *Think* of whatever you’re doing.”

“Aye.”

Greg tensed, bending his knees slightly, then leaped away from the satellite. At the same moment, a spurt of compressed air shot out behind him. His golden body sailed through space gracefully, turning over as he

brought up his knees. When he landed, the sharp grips on the soles of his feet held him to the icy surface. He was standing with his head down toward Dig.

“Ready?”

“Aye,” Dig said, and leaped. He followed the maneuver pattern used by his companion and landed beside him. “We’ll crawl around to the other side and see our next space jump,” Greg said. He stuck a marker stick into the ice.

By short jumps, the two robots slowly advanced deep into the ring.

Once Dig missed his footing and went sailing past the satellite on which Greg waited for him. But Dig felt at ease in space. He twisted his body over to land on a small, round boulder of ice. The moment his feet touched the icy surface, Dig kicked and sent his body floating toward a larger satellite some distance ahead. He landed and, laughing, called Greg.

“We might go bouncing around from ice-floe to ice-floe.”

“Sure. Like crossing a frozen stream that’s just breaking up,” Greg replied. “But dangerous if you miss your step.”

Another time, Greg failed to see a rapidly moving lump of ice. It struck him behind the head and sent him tumbling head over heels into space. He recovered his balance and jetted on to a safer place.

“That’s another way of getting around,” he said to Dig when the boy joined him. “The robots can take a hard crack, but I might wake up in the spacehut with a bad headache.”

They passed through a thick layer of ice and could see some distance ahead. There was a huge satellite a short distance away. Greg scratched his hard robot chin thoughtfully.

“That satellite and the one our camp is on seem like a pair, with a lot of loose pieces grinding between them. I wonder if they were once one big satellite that broke in two?”



“These icebergs seem to be breaking up and reforming all the time,” Dig replied, glancing about.

They spacejumped from piece to piece until they landed on the large satellite. The space above them was clear for almost a quarter of a mile where a thick stream of grinding ice mountains streamed past.

“We’ll see if we can find the missing X in the frozen methane here,” Greg said.

They separated, walking in opposite directions. Every few feet, they jabbed their testing spears into the snow which covered the harder ice beneath.

“Some traces of it here,” Dig called out. “My spear turns red at the point.”

“Not enough,” Greg called back. “The red has to creep right up to the top to make it worth mining.”

They moved in a great circle, keeping within sight of each other. When they returned to their starting point, Dig scratched his metal robot head thoughtfully.

“I found traces of Methane-X all over the place.”

“Same here. But not enough.”

Greg looked at the stream of floating ice above his head. It was light enough to see the massive pieces grinding against each other. Light from the distant sun reflected brightly on the masses of ice.

“I don’t like the idea of going into that mess,” Greg said, pointing at the thick stream of ice. He glanced back the way they had come. “What we came through was bad enough.”

As Dig looked up, he noticed a sudden bulge beginning to grow in the ice stream. He watched, puzzled.

“What’s that?” Dig asked.

“What’s what?” Greg said, following Dig’s eyes. “That’s—”

He stopped. The mass of ice began to move toward them. A second later they understood.

A big satellite moving fast and across the ring was

forcing its way through the ice stream, sweeping up the smaller pieces as it went.

“*Jet!*” Greg cried.

He dived, his jets blasting behind him and streaked along the surface of the satellite. Dig followed, his nose inches behind Greg’s heels.

The huge satellite struck and they could *see* the surface of ice crack and buckle under them. There was no sound. They turned to look back as they reached a jagged rock sticking out of the ice.

A mushroom of powdery ice and snow rose upward. The satellite had struck with such violence that it skidded, ripping up a great mile-long trench. Pieces of ice were dropping slowly all around them.

“Wow!” Greg exclaimed. “If we’d remained under that, not even our robot bodies could have taken it.”

“What would it do to us?”

“We’d be flattened,” Greg said, “Electronic equipment and all, we’d be thin as a couple of shadows.”

“I’d like to see how deep that hole is,” Dig said.

They walked to the edge of the trench and looked down. Perhaps two hundred yards down, they saw dark rock.

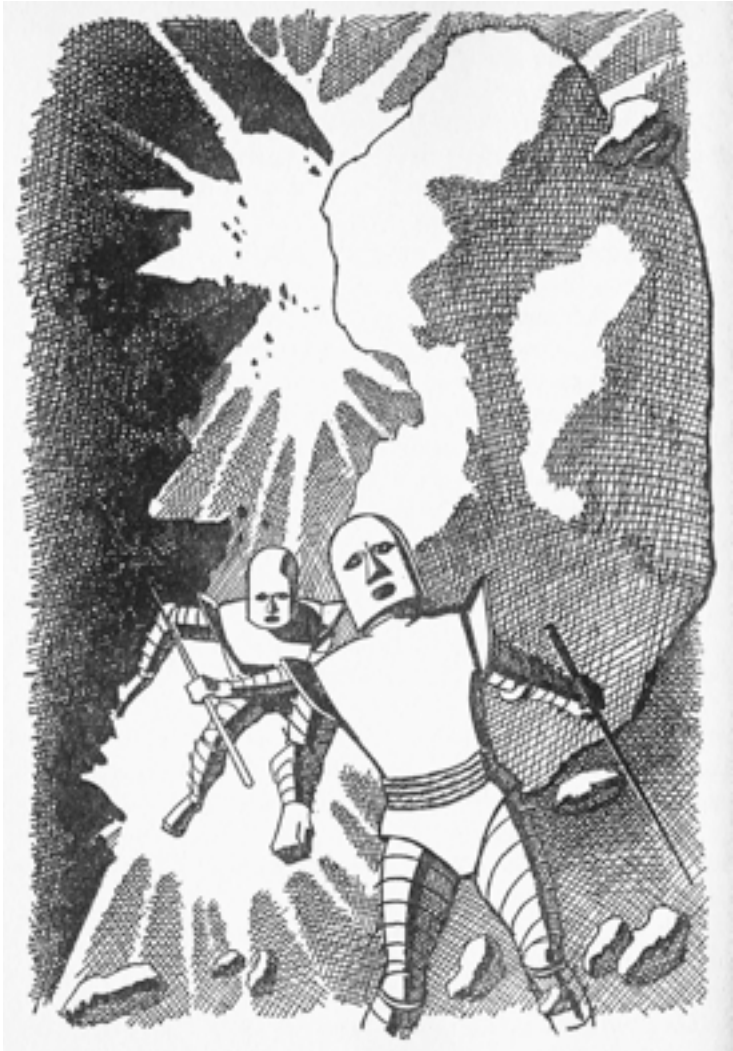
“So this satellite has a hard core around which the gas has frozen,” Dig said. He jabbed his testing spear into some of the turned-up ice. It showed a bright red. “Look at this, Greg.”

“That’s rich enough to carry back as a lump.”

“I’m going down to test for Methane-X,” Dig said as a sudden idea came to him. “It might be under the surface.”

He jumped and let himself float slowly down into the hole. When his feet touched the rock bottom, he tested the sides of the hole. Again the spear showed red.

“The answer is right here, Greg. Methane-X either sinks down through the ice or evaporates from the surface.”



Greg jumped down to join the boy. He tested the steep sides of the hole.

“You’re right. There’s all we need down here. We can go back and report to Dr. Barry.”

“I’ll take a chunk to show him,” Dig said. With his mighty robot fist, he cracked off a large piece of ice jutting out from the side. He felt as though his strength had increased a thousand times over.

Holding the lump of ice in one hand, Dig leaped upward and sailed out of the hole. Greg followed him and they jetted down to the surface.

The way back to the base satellite was easier. Greg had fixed marker poles as they went along and these now guided them on the return trip.

The men were going into the mess hut for their meal when Greg and Dig stumped into the camp. They entered the control hut and found an anxious group waiting for them.

“The next time you go out,” Dr. Barry said sternly, “I want to know where you are going and for how long. We’ve been waiting and worrying...”

“We won’t do this again, sir,” Dig told the scientist. “We’ve located a rich deposit of Methane-X and mining can start at once.” He placed the piece of ice on a table. “Here is a sample.”

Keith Barry took the testing spear from Greg and bent over the ice. Professor Norwyn silently shuffled over to stand beside him, watching with a grim, worried expression on his thin face.

“Why don’t you get out of that... that thing, Dig,” Jim said. “I can’t get used to you being in two places at the same time.”

“He just wants a chance to get into the robot himself,” Ken smiled.

Dig and Greg walked to the side of the room and placed themselves against the wall. The next instant they thought themselves back into their bodies.

“Doesn’t feel bad at all,” Dig said, grinning until the freckles seemed to jump around on his face. “I like the robot, but I like being a human being better.”

He sat up and took the bands off his wrists and ankles, then slipped off the electrodes. Greg was doing the same thing in the next chair.

“Did you say this piece of ice had Methane-X in it?” Keith Barry asked from across the room.

“Loaded with it, sir,” Greg replied.

“Take a look at the testing spear,” the scientist said.

Dig and Greg jumped out of the chairs and joined Dr. Barry and the professor around the table. In the warmth of the room, the ice was melting rapidly. Little rivulets of liquid rolled along the table, gradually vanishing as they turned into gas.

“Be careful you don’t breathe the stuff in,” Barry warned. “That’s mostly ammonia and methane. But very little Methane-X.”

He pointed to the tester. It showed only a faint tinge of red.



## 9 The Phantom Robot

GREG BAYARD looked at the testing spear, then turned to Dig. “

You had an idea, back there,” he said. “The Methane-X either sank down through the ice or evaporated.”

“That could explain it,” Keith Barry said. “Direct light might make the molecules move around faster, allowing the Methane-X to evaporate out. You had direct light when you brought this here?” he asked Dig.

“Oh, yes. The ice satellites bounce light in every direction. There’s plenty of light out there in the ring.”

“Well, then we’ll have to work out some way to bring the frozen Methane-X out without letting it melt away,” the scientist said. “Now I think you boys might be a little hungry...”

“Come to think of it,” Jim said, combing his hair back from his eyes with a sweep of his hand, “I am hungry.”

“Come into the mess hut. We can talk and eat at the same time.”

Dr. Barry led the way to a side door which opened into a long airtight passage. They went through into the mess hut where the crew members were already finishing their meal.

“Ahoy, there, mates,” one of the men laughed. “There be the robots. Bring out the grease and oil.”

Laughter rolled through the large hut as Dig and Greg came in. A table had been set aside for the director of Space Research, Professor Norwyn and the Space Explorers. There was a place set for Greg and another for Maxie.

“That’s for the time when he be joining us again,” the cook said nodding his head at the empty chair. “There be hot soup and real steak for all this time,” he said. “And ye best enjoy it for we’ll be living on concentrates from now on.”

Professor Norwyn seemed to draw away from the others as he sat silently chewing on his food. There was

a sadness in his face and he appeared solemn and strangely frightened.

The others discussed the problem of bringing in the Methane-X.

Jim said, "Why don't we wrap the ice in something so the light won't get to it."

"That's a good idea," Ken agreed with his brother. "But why carry pieces of ice? What happens when it evaporates?"

"Turns into a gas," Dig said.

"Why don't we capture that gas in a bag?"

"It shouldn't be difficult," Dr. Barry said. "Take a plastic bag with you and load it with frozen Methane-X."

"The bag will expand as the ice melts," Greg said. "That's the solution."

"A bag or two," Dr. Barry said, "and I'll be able to start making a test piece of Metalex."

"It's nonsense!" Professor Norwyn suddenly blurted out. He turned a pair of angry eyes on Keith Barry. "You know such a metal doesn't exist..."

"But I demonstrated a sample, sir..."

"You played some kind of cheap trick, Barry!" Professor Norwyn grew pale. "I know, because of what you plan to do with this metal! You're trying to stop my exploration of the Sun from a satellite station."

"I don't understand you, sir." Keith Barry, too, turned pale as he faced the angry professor. "I had no idea you were planning to explore the Sun..."

"Oh, yes! You expect me to believe that!" Professor Norwyn threw his fork on the table and sent it clattering against the plastic dishes. "You know of my experiment. I've been working for years to send a spaceship with my robots to circle the Sun and study its surface. I want to find a way to harness the power there and—"

The professor turned and stalked away from the table, leaving the others too stunned at his sudden flare-up to speak. He went to the locker, pulled out a spacesuit and put it on. Before he slipped his



spacehelmet over his head, the professor turned his fierce eyes on the group.

“I’m going out for a walk,” he snarled. “You’ve got my robots, Barry. You’ve got what you wanted!”

He clamped on the helmet and strode into the airlock, slamming the hatch shut behind him.

Greg Bayard scratched his chin, wondering. “Now what was that all about, sir? That is, if you want to tell us ...”

“I’d like to, but I don’t know what’s got into him.”

“He seems to be jealous for some reason,” Dig said. “What is this experiment on the Sun about?”

“I don’t know, Dig,” the scientist said. “But the idea of sending robots in a space station to survey and study the surface of the Sun—that sounds very interesting. It could be one of the great experiments of our time...”

The meal was finished in uneasy silence. The professor’s outburst had wiped away their cheerful feelings.

Afterwards the three Space Explorers and Greg Bayard went to the rest hut and found bunks prepared for them. They caught several hours of much-needed sleep.

Professor Norwyn had not returned from his walk when the boys and Greg joined Keith Barry in the robot control hut.

“I’m a little worried about him,” the scientist confessed. “The professor is a brilliant man... and a bit excitable.”

“You mean, sir, he can blow his top sometimes?” Greg grinned. “I’ve been working for him over a year now. I’ve seen him get... well, excited, sir. An atom bomb on a rampage is mild compared to him. I mean, sir, the professor can be dangerous with his kind of temper. You know what I mean... “

“I do, indeed, I do,” Dr. Barry sighed. “You can understand why I’m worried about him. He can start walking and not stop until he’s circled this satellite.”

“Not likely,” Greg laughed, sitting down in the reclining chair and beginning to slip the metal bands on his wrists and ankles. “If you saw what’s on the other side of this hunk of ice, you’d agree that no one in a spacesuit can get through there.”

Dig had meanwhile fixed the bands on his ankles and wrists. He turned to his two friends as he placed the electrodes on his head.

“I’m going to put in a request for one of these robots for our ship. They’re wonderful...”

“Never mind that,” Jim stopped him. “That’s for later. When do I get a chance to make like a robot?”

“The Methane-X first, boy, then you can take turns in the robots,” Dr. Barry told Jim and Ken.

Dig and Greg switched into the robots instantly. The solid golden figures came to life. A few minutes later, carrying a folded plastic bag, a cutting torch, and their testing spears, the two robots were hurrying across the wide expanse of ice.

This time the markers they had placed guided their spacejumps. The tall, slender sticks with stiff red flags showed up clearly against the white background.

When they reached the hole, they dropped down to find that light slanting over one side had evaporated the Methane-X from the exposed frozen gas.

“We’ve got to do something about this,” Greg said, scratching his robot chin.

“Carve out a tunnel and mine that,” Dig suggested. “That’s the way they usually mine on earth.”

Dig drew back his fist, then drove it hard against the ice wall. It crumpled under the force of the metal fist. He repeated the blow again, enlarging the hole. Bit by bit, he continued to hack away tirelessly.

“Makes you feel pretty tough, eh?” Greg laughed.

“Sure does,” Dig agreed, grinning though he knew that the metal of his robot face showed no sign of a grin or expression on his face.

“Let me have a try.”

Greg began to break the ice and gradually the hole became bigger. A test indicated that once more the pieces of broken ice contained Methane-X. Greg started the cutting torch and began to carve a tunnel into the ice. Dig filled the plastic bag with the chunks of ice Greg cut out.

The work progressed quickly. Soon they had cut a good distance into the wall of ice. The bag of clear plastic was more than half full when Greg called a halt.

“I’m going to take it back to camp, Dig. You stay here and keep breaking down the ice.”

“I’ll go with you.”

“There’s no need. In this light gravity, I could carry twice that load even if I was in my own body,” Greg laughed. Besides, I’m more experienced as a robot and can make the trip a lot quicker.”

“Aye, aye,” Dig agreed. ‘I’ll keep cutting away.’ Tossing the huge plastic bag up, Greg leaped out of the hole. He caught the bag above the surface and jetted away.

Dig returned to his work, cracking and breaking off lumps of ice. These he piled carefully inside the tunnel to keep I hem out of any light that might enter the hole.

He worked for some time before he paused to look at the Ice piled neatly behind him.

“Should be almost enough to fill another bag,” he thought to himself.

Over the neat layers of ice he caught a glimpse of a figure at the mouth of the tunnel.

“Hi, Greg. Back so soon?” Dig said over the direct radio wave length. “I’ll break off a few more pieces. You start filling the bag.”

Dig turned back and knocked off a jutting block of ice with his fist.

As he stooped to pick it up, he suddenly realized that Greg was not filling the plastic bag. The golden robot was not in sight. And more—there had been no answer to his greeting.

“Greg?”

There was no answer. Dig switched to radicom for longer range communication.

“Greg?”

There was silence all around him.

Puzzled, Dig walked out of the tunnel. There was no one in the hole though he was sure he had seen Greg’s figure but I moment before, peering into the tunnel.

He called again. “Greg? What’s the matter with you?”

When he received no answer, he leaped out of the hole.

All around him was snow and silence. A short distance away, jagged rock stuck out of the whiteness. Nothing else.

“Strange,” Dig said to himself, scratching his robot head.

The hoarfrost smoothed out the trampled snow. The tiny Bakes formed and fell constantly. Everything was smooth and white—and still. Smooth and white and—Dig gasped.

Footprints made a trail to the hole and then away from it. Fresh footprints, Dig was sure as he bent down and examined them.

There was another trail leading in the opposite direction. Partly covered by the frost, the footprints pointed toward the markers.

“Greg’s,” Dig said to himself. “Going back to the camp.”

He looked again at the fresher tracks. A robot’s, he saw. But why in the opposite direction? And who made them?

He decided to follow them. The footprints led across the snowfield to a heap of broken ice boulders. They zig-zagged through the huge lumps of ice, making a clear path, then out again to a clear white field of soft snow.

There they disappeared.

Dig stopped and stared in amazement. The footprints ended in the middle of a smooth, flat plain of fresh snow.

For a long time he stood there, completely mystified. How could they vanish so completely—right into space.

Then he looked away from the surface. A large satellite drifted over his head.

“Spacejumped across to that satellite,” Dig said to himself.

He walked back slowly. Beyond the field of ice boulders, he saw coming toward him the golden figure of a robot.

“Is that you, Greg?” he called.

“Of course. Who’d you expect?”

“But I saw you in the tunnel a few minutes ago and followed your footprints out here.”

“Couldn’t have been me. I was still hopping from iceberg to iceberg.”

“But I saw you, Greg! A golden robot!”

“Hey, kid! This is serious,” Greg said. There was concern in his voice as he approached the boy. “You mean it?”

“Absolutely. I saw you.”

“I tell you that’s impossible.”

“I’ll show you the footprints.” Dig turned to point to the trail he had been following. But the prints were almost completely filled in by the fast-forming frost crystals.

“Look, Dig. We better fill this bag up and get back to camp.”

“You think I’ve been seeing things?”

“Well, Maxie and I had a few queer things happen to us when we stayed out too long. Until we got used to being robots, anyway.” Greg took Dig by the arm and led him to the edge of the hole. They dropped down together. “Something like that may be happening to you. You know what I mean, Dig...”

“I think I do. You mean I’m seeing spacemirages...”

“Sure. Something like that...”

“Well, it’s not the first time I’ve seen mysterious footprints around here.” Dig told Greg what the Space

Explorers had found on their first visit to the camp.

“I believe you, Dig,” Greg said after he had heard the boy out. “We know there’s something strange going on. Somebody is trying to stop Dr. Barry...”

“Or steal Professor Norwyn’s robots.”

“Or that, sure,” Greg agreed, hurriedly filling the plastic hag with lumps of ice prepared by Dig. “But another robot like us? Impossible. There’s just the two of us in the whole Solar System. If there’s another, he’s probably locked away safely in the Professor’s lab back on Earth.”

Dig stopped arguing. He knew what he had seen with own eyes... with his robot eyes, he corrected himself quickly.

The plastic bag was filled and Greg hurried him out of the hole.

“We’ve got to rush back or the Methane-X will blow this bag out so big I’ll never get it through the pack of ice.”

As soon as they arrived in camp, Greg Bayard took Keith Barry aside and told him of the incident.

“He needs a rest, sir. Some kind of space fatigue. It happened to Maxie and me, too, when we started working the robots.”

The scientist frowned, thinking quietly for a few minutes.

“Strange. I’d expect it of anyone else, but not Dig Allen That boy grew up in space. He can take a strain that few veteran spacemen can stand.”

“Just the same,” Greg insisted. “Dig’s beginning to see phantom robots where none can exist.”

“Well, it’ll do no harm to give him a rest. He’s been working hard,” the scientist decided. “Jim will go with you on the next trip.”

Dig accepted Dr. Barry’s decision calmly. Jim was anxious to try out the robot and Dig was glad to make way for a friend. But deep inside, he resented Greg Bayard... and faint mistrust began to form in his mind.

## 10 Danger in the Ice

THE plastic bags grew to mammoth size as the ice within Ill cited and turned into gas. Tied to stakes driven in the ice, they dwarfed the spacehuts.

“How are you going to get them into the *Beagle*, Dad?” Ken asked, looking out of the small, round viewport. “They’re almost as big as the spaceship.”

His father chuckled. “We’ll pump the gas through the compressor and condense it again. There’s room in the *Beagle*’s freezing compartment for a hundred times as much as that, in solid form.”

“What about the ordinary methane and the ammonia?”

“That will be filtered out before we freeze the Methane-X.”

“Let’s see,” Dig said. “We can bring in about six bags a day, maybe eight if we work harder. That means two weeks...”

“Two weeks and then we take the *Beagle* back. The men will remain here until a regular space tanker arrives,” the dentist said.

He turned away from the viewport to look at Jim and Greg lying still in the reclining chairs. Professor Norwyn, notebook in his hand, was jotting down some of the figures shown on the various meters. From time to time he nodded his shaggy white head, saying nothing, but clearly pleased at the way his invention was working.

Dr. Barry watched him for a few minutes. “I wonder how Jim is making out as a robot,” he said.

The professor turned. “Fine, fine. The boy is doing very well.”

“I’m going to take the Methane-X to the *Beagle*, Professor.

I want to test my formula for making Metalex.”

Norwyn raised his sharp eyes from his notebook and met Keith Barry’s gaze. “You expect to leave in two

weeks?”

“About that. Not later.”

“Hmmm...” Professor Norwyn frowned, holding his head stiff. “I’ll go with you,” he said. “I want to see you start your work, and I can bring the spacesled back.”

“I’d like to have you with me, sir. Very much so. I want to convince you that Metalex will really work.”

“Nonsense, Keith,” the old teacher waved his hand, dismissing the idea. “It’s still that silly idea of yours... about neutral matter... positive matter... negative matter... all nonsense.”

“But there is the information we translated from the Asterian records on Asteroid Eros—”

The professor was in good humor. “I don’t believe a word of it,” he stated. “Once before you won an argument by getting the newspapers to make fun of me. Now you bring in the Asterians. It won’t work, Keith. Not this time!”

“Professor Norwyn,” Dig asked, “if you don’t believe in Metalex, why are you helping? You made the M-Robots and came out here...”

“Because, young man, the World Council asked me to do it!”

“You could have refused...”

“Hah! I need their support for my experiments. And besides, I wanted to give my robots a thorough test.” Norwyn turned away from Dig and waggled a finger at Dr. Barry. “Young man, you have been wasting taxpayers’ money! Sheer waste! Your Metalex will never work. I promise you that.”

He turned his back on them and went to the storage locker to get his spacesuit. When he had put it on, he glanced at Keith Barry.

“Well? Are you going to the *Beagle*?”

“Be with you in a minute.”

Professor Norwyn went into the airlock and closed the hatch behind him.



“Why is he so sure Metalex won’t work, Dad?”

“I don’t know, Ken. Professor Norwyn is a strange and brilliant scientist.” Keith Barry grew thoughtful. “But he’s also II jealous and frightened man.” He shook his head. “I don’t always understand his moods...”

The scientist put on his spacesuit and went to the airlock.

“I’ll be working in my laboratory on board the *Beagle*,” he said. “If you need me, call. And continue bringing in those bags of Methane-X.”

“Aye, aye, sir!” Dig and Ken called after him as the scientist disappeared into the airlock.

Alone, the two boys went to the instrument panel. Dig flipped a switch and called Jim.

“How does it feel being a robot?” he asked when the contact was made.

“Feels great,” Jim replied enthusiastically. “You ought to see the tunnel we’ve made. I’m using the cutting torch and the work’s going fast. We’re way inside under the ice and the Methane-X is better here. Almost pure stuff, according to the testing spear.”

“How long are you going to be there?” Ken asked.

“Half an hour more, maybe. Greg’s lugging the ice closer to the opening. As soon as we have enough for six bags, we’ll start loading and carrying. Won’t have to cut any more today.”

“Good idea. We’ll let you work now,” Dig said. “Just wanted to know how you were doing. Take care.”

“Aye, aye, sir.” Jim laughed. “See you soon.”

“What do you mean?” Ken grinned. “I can see you here right now.”

Dig switched off. “I know how you and Jim felt when was out there,” he said to Ken.

“Restless and worried—and watching the seconds tick away on the chronometer.”

Inside the long tunnel, meanwhile, Jim continued to cut out blocks of ice.

The tunnel dipped gently as it followed the curve of

the rocky core of the satellite. Greg, every time he carried away an armload of ice blocks, disappeared behind the slope of the tunnel's floor.

"I think we've dug enough for today," Greg said as he appeared behind Jim. "We'll take what you've cut and start filling the bags."

"Aye, aye," Jim responded cheerfully. He put the cutting torch on the tunnel floor and began to load his arms with blocks of ice.

"The torch can stay here. No use carrying it back and forth."

The two robots moved back along the tunnel. When they were close to the entrance, they began to fill the plastic bags with the blocks of frozen Methane-X. When they were finished, they pushed them out of the tunnel.

Jim turned back to look at the remaining pile of cut ice.

"I think we have enough for ten bags," he said.

"Then we'll try to make five trips and bring all of it out two bags each trip."

"Good thing our robot bodies don't get tired," Jim laughed.

Greg had his back to the tunnel opening and did not see the round, metal ball that rolled toward them.

"What's that?" Jim asked, pointing to it.

"What's what?" Greg said.

At that instant, the ball seemed to explode. A huge blue flash of light ballooned through the tunnel, seeming to swallow the two robots. For several seconds streaks of electricity leaped between the robots. When the sparks died away, the two golden bodies drifted stiffly down to the floor of the tunnel and lay still.

In the control spacehut, Dig paced restlessly before the two motionless bodies. His eyes shifted from the chronometer to the chairs, then back again.

Sitting quietly at the table, Ken watched his friend's nervous pacing.

“Why don’t you call them?” he suggested.

“It’s more than an hour since Jim said they were about finished.”

“The trip there takes about an hour.”

“I’ll wait another thirty minutes,” Dig said. “Then I’ll call.”

Ken nodded silently. His eyes flicked to the chronometer. The time dragged slowly. The half hour passed and with a nod to Ken, Dig switched on the communicator.

“Jim?” he called. “Greg? What’s holding you robots up?”

There was no answer. Ken rose and joined his friend at the instrument panel.

“Jim? Greg? This is *Dig*. Answer me!”

“What’s the matter with this?” Ken asked worriedly. “Maybe they’re spacejumping through the thick of the ice stream?”

“That shouldn’t stop them from answering.”

Dig waited a few moments, then called again.

“Something’s happened to them!” Ken’s voice now showed the fear building up in him.

“We’re not sure,” Dig said, trying to give some encouragement to his friend. “They may be close to the camp and...”

He began to call, pausing only long enough to listen to the loudspeaker.

They were too busy to notice the red light flash on over the airlock. Professor Norwyn came in alone as the hatch opened. He stopped and looked at the two Space Explorers, then slowly began to take off his helmet.

“What’s the matter?”

Dig and Ken looked up.

“They don’t answer,” Ken cried. “They should have been back by this time.”

Professor Norwyn hurriedly slipped out of his

spacesuit and tossed it aside. Then he stepped to the instrument panel.

“Let me try.”

“Aye, sir.” Dig drew back.

“Greg Bayard,” the professor snapped into the microphone.

“This is Professor Norwyn. What’s going on out there?”

He waited for an answer and when there was none, he continued.

“Greg Bayard! Jim Barry! Do you hear me? Do you hear me?”

There was no reply and the Professor stepped back shaking his head. His thin face was suddenly stricken with horror.

“What have I done?” he cried. “I’ve killed them!”

“You, Professor?” Dig looked at the old man.

“I—I shouldn’t have permitted them to use my robots!”

Dig took the communicator switch from the old man’s hand and gently pushed him away.

“Why don’t you sit down, sir?”

“It’s no use... no use...”

“Ken!”

“Aye?”

“Help the professor...”

Ken took the old man gently by the hand and led him to a chair. The professor seemed too stunned to know what was happening to him.

“I thought they’d be back by now,” he said. “I didn’t want them killed.”

“They’re not killed, sir!” Dig said, flashing a keen look at the man. Then he bent over the microphone.

“Jim! Jim! This is Dig. Can you hear me? Listen... think yourself back to your body! If you hear me, think yourself back... think yourself back... back...”

His voice faded into silence. Then he took a deep breath and began to speak to Greg in the same way.

The two bodies remained motionless in the reclining chairs.

“They can do it even if they’re only half conscious,” Professor Norwyn murmured.

“Jim! Greg! This is Dig Allen. Listen to me...”

A faint sound came from the loudspeaker.

“Dig... Dig...”

“Yes! Yes! This is Dig...”

The voice came in stronger. It was Greg!

“The flash... blue... electrical discharge... same thing as Maxie...”

“Where are you? Can we come out and get you?”

“Don’t know... don’t know... ice all around... can’t move... drifting in the ring... or buried... don’t know...”

“Where’s Jim, Greg?”

“Don’t know...”

“Greg! Think back to your body!”

“Got to find Jim... Can’t move... can’t turn head... seem to be frozen in ice... inside...”

“Come back here, Greg!”

There was a soft murmur. “Aye...”

The next instant Greg’s body in the chair began to stir. A moan escaped his lips, He opened his eyes and turned to look at the body of the boy beside him.

“Jim... Jim...” he moaned “Where’s Jim?”



## 11 The Ice Coffin

THE few words he muttered drained Greg of his strength. He lay still, his head turned to the boy, his eyes closed.

Ken took off the bands from his wrists and ankles gently. While he was removing the electrodes, Dig continued to call over the communicator.

“Jim! Jim! Greg is safe. Can you hear me, Jim!”

From somewhere, faintly, came a low moan.

“What was that?” Ken asked.

“I’m not sure.” Dig brought his mouth closer to the microphone. “Jim, is that you? This is Dig. Answer me, Jim. Say something... anything... moan... think...”

“Ice!” The word came clearly through the loudspeaker.

“Jim!”

“Ice... Ice all around...” It was Jim.

“He’s alive! He’s all right!” Ken cried, jumping with joy.

“I hear you, Jim. Where are you?”

“Ice all around. Frozen solid in it... can’t move... how’s Greg... Greg got the worst of it... he was closer...”

“How do you feel?”

“Awful... stiff... can’t think straight...”

“Do you know where you are?” Dig asked, speaking very slowly.

“In ice... frozen in... a coffin of ice...”

Professor Norwyn approached slowly. The fear was gone from his face. But his voice still sounded worried and his hands were trembling.

“Are you sure, boy? You don’t know where you are?”

“In ice... solid all around me...”

“The robots? Are they damaged?”

Dig turned on the old man. “How should he know,”

he asked quietly but with a shade of anger in his voice. "He's buried and frozen inside a cake of ice! He can't move!"

"But he might know..." the professor replied curtly.

"Jim! This is Dig. Think yourself back to your body."

"Aye," Jim replied softly.

The next second he stirred in the chair and opened his eyes.

"How... how is Greg... the thing exploded... almost under him..."

"Where did it happen?" asked Professor Norwyn.

"In the tunnel... a black, round thing..."

"How did it get there, Jim?" Dig asked gently. "Can you remember?"

"It... it was rolled... thrown... I didn't see..."

"Ah! You didn't see anyone?" the professor asked.

Jim shook his head and closed his eyes. He lay quietly, resting.

"I'll take them to the *Beagle*," Professor Norwyn said, turning to the instrument panel and switching on the intercom system. "Attention, men, I want some of you men here right away. Bring two stretchers with space covers."

He began to put on his spacesuit.

"I'm going with Greg and my brother," Ken said. He started for the storage locker to get his suit.

"You and Dig Allen will remain here," Professor Norwyn stopped him sharply.

"Just a minute, sir," Ken began to protest.

"I know how dangerous this can be," Norwyn said tersely. "They need rest and quiet. Quiet above all. You'll stay here and see that my equipment isn't damaged. You understand?"

"Yes, sir!" Ken said quickly. "You think..."

The professor turned his gnome-like head on the boy. "We'll take no chances from now on!"



“Aye, aye, sir.” Ken and Dig exchanged uneasy glances. Dig said nothing. “We’ll stay, sir,” Ken added softly.

Several men entered through the storage hut door. They brought in two stretchers and laid Jim and Greg in them. A plastic tent was raised over the bodies so that they could breathe while being carried to the *Beagle* on the spacesled.

Professor Norwyn went through the airlock first. The men carrying the stretchers followed. Dig and Ken were left alone in the control hut.

“It’s the end of Dad’s experiment,” Ken said quietly. “The robots are drifting around somewhere in the rings, frozen inside a cake of ice...”

“I don’t think so!”

Ken eyed his friend. “You don’t think what?”

“They’re frozen inside the ice, yes. But I don’t believe they’re floating around in space.”

“Why?” Ken asked, his eyes watching his friend soberly. “What makes you sure?”

“Because I think I know where the robots are!”

“Where?”

“Buried inside the tunnel,” Dig said thoughtfully. “Someone—our secret enemy, let’s call him—doesn’t want these robots to be destroyed or lost. They may be the very prize he’s after.”

“Like Maxie’s robot being hidden in the dust cloud?”

“Aye, like Maxie’s robot.”

“*If* our enemy is after the robots...” Ken said. “What about them being frozen in solid?”

“That’s my second reason,” Dig said. “What happens when you bounce thousands of volts of electricity in a tunnel of ice?”

“Heat?” Ken asked. “It melted the ice and then it froze again around the robots?”

“That’s the way I figure it.”

“You’re right,” Ken said after thinking it over. “But

what can we do about it now?"

"Go out there and melt the ice!"

"What? You said yourself a man in a spacesuit didn't stand a chance in that mess of bouncing icebergs."

"I'm going to take that chance!"

Dig opened the locker and took out his bright yellow spacesuit. He began putting it on.

"I'm going with you."

"No, you stay here and watch the equipment."

"Two have a better chance than one," Ken insisted. He could be very stubborn on certain occasions. This was one of them.

They checked their equipment, made sure the double oxytanks were full, then took cutting torches. They fastened sharp cleats on their feet for gripping the ice.

"We'll slip away without anyone seeing us," Dig said, dialing his radicom down to the lowest range.

Ken nodded and the two boys went into the airlock. They emerged cautiously through the outer hatch. No one was near. A group of the men were gathered at the far end of the camp talking quietly.

Dig motioned for Ken to follow, then slipped outside an around the corner of the hut. They kept the spacehuts between them and the crew members until they were out of sight below the near horizon.

Then Dig, familiar with the trail, set out in long, running steps that carried him quickly over the frozen surface of the satellite.

Ken had seen the other side of the satellite only once, when they explored with the spacesled. Now he looked at the endlessly churning, grinding mass helplessly.

"The robots have metal bodies, Dig," he said. "How can we hope to get through in just our spacesuits without being squashed?"

"It's not as bad as it looks. We can get through if we're careful. Just avoid getting hit by one of the pieces. And don't get caught between a couple of them."

“All right.”

Dig leaped, jetted and landed safely on the nearest satellite. Ken followed and joined him beside the marker stuck in the ice.

“Now what?”

“We crawl around to the other side and jump to the next marker.”

They moved slowly, cautiously, almost creeping along the slippery surface.

“Flat!” Dig called over the radicom.

Ken dived down and lay flat, clinging to the surface as a mass of ice moved sluggishly over him. It took several minutes to pass and after it had gone, he remained lying still.

“Come on, Ken. We haven’t got enough air to waste time.”

“How long is this going to take?”

“About an hour to get there...”

“If we get there.”

Dig spacejumped to the next satellite and waited for Ken to join him. Little by little, they gained confidence and their progress went faster.

But long before they sighted their destination, their faces were dripping with perspiration, their bodies ached in every muscle and they had to gasp for breath.

“There it is,” Dig cried, pointing to the huge white satellite a few spacejumps ahead. “Three more markers to make, and we’re there.”

Ken shuddered as he looked back the way they had come. “And we have to go back that way. I don’t know if I’ll have enough nerve to try it.”

“You will,” Dig said. “Now let’s get this over with...”

The voice over the radicom cut out with a frightening gasp. Ken started to turn when something white hit him and smashed him against the ice.

“Dig!” he called. “What is it...”

“We’re caught between two satellites.”

Ken felt himself being pressed down slowly but relentlessly. He felt the ice grind his glassteel helmet, heard the hard crunch of breaking ice, and wondered how much pressure the helmet could stand.

The ice seemed to soften around his spacesuit, then creep between his legs, around his arms, freezing into rock-like hardness.

“It’s... it’s crushing me, Dig. I don’t know how long I can stand it... I...”

“The cutting torch, Ken!” Dig cried desperately through the earphones. “It works! Use the cutting torch!”

Ken had been holding it in his hand when the ice satellite struck him. He was barely able to move his finger, but that slight movement was enough.

He pressed the trigger. The ice around his hand melted, and he began to enlarge the hole. A minute later he had made enough room to swing the nozzle from side to side and cut the ice away.

“I’m almost clear,” he called to Dig. “What about you?”

“I’ve made an igloo for myself,” Dig replied. He tried to make his voice light-hearted but failed.

“I can stand up. But, Dig, we can’t stay here. I’ve used up an hour of oxygen already.”

“What did Jim call it? A coffin of ice? We’re in one now.”

“Can we cut our way out?”

“We have to,” Dig said. “Stay where you are and talk. I’ll tunnel to you.”

When struck by the satellite, the two boys had been a few yards apart. Within seconds, Dig melted a passageway and the Space Explorers were together.

“You were closer to the edge, I think,” Dig said. “I caught a glimpse of the snowball as it came down.”

They took turns cutting their way through. Under the

intense heat of the torches the ice bubbled and changed to gas. Some minutes later they broke into the open. They were at the base of a huge mountain of snow and ice.

“Let’s get away from here,” Ken said in a shaky voice.

They finished the rest of the trip in silence. Beyond the last marker, the surface spread flat and white. There was no sign of the great hole from which the tunnel had been dug.

“It’s around here,” Dig said, looking about him, puzzled.

“If it is,” Ken said, “it’s covered up.”

“That wouldn’t be hard to do. A couple of explosive grenades can throw up enough snow and ice to hide the opening.”

Dig found the sharp rock jutting out of the snow. It was a familiar landmark.

“Greg and I stood here at the rock,” he said to Ken. “The hole was about here.”

“Can you find the tunnel?”

“I think so.” Dig walked on a straight line, keeping the rock at his back. “The tunnel opening should be somewhere around here. Jim said they were at the mouth of the tunnel when it happened...”

Ken started his torch and began to cut the ice away. They worked steadily for half an hour until they reached the rocky core of the satellite, then began to enlarge the hole. Within a few minutes they found one of the robots.

The second robot was buried a short distance away. Both were inside solid cakes of ice.

Carefully they melted the ice away. Dig bent down and examined the golden figures.

“No damage that I can see,” he said. “But look at this!”

Quickly, he cut away some ice and pointed to a small black metal ball that had been buried a few yards away.

“Emergency Call transmitter!”

Dig looked closer. "Set to go off automatically in two weeks." The two boys stared at each other through the glassteel of their spacehelmets.

"Someone planned to come back for these robots!" Dig whispered.

"Let's get back to camp," Ken said.

Dig agreed. As they started back, he added, "Professor Norwyn will be happy to know his robots are safe."

The return journey was easier. They were learning to watch for moving satellites before getting too close to them—and luck was with them.

Three hours after they had left the camp, they were back. Dig called Professor Norwyn over the radicom. There was no answer.

Ken pointed to the empty camp. "The spacesled isn't here. The Professor must be on the *Beagle*. I hope—"

"Someone here should have answered," Dig said uneasily, looking around him. "Do you hear anything over the radicom?"

"No." Ken was surprised. "I can always hear the men talking and... Say? Where is everyone?"

They hurried to the large mess hut and looked through the viewport. The table was set for a meal, but the place was completely deserted.

"Hello!" Dig called over the radicom. "Is there anyone here? Ahoy, there! Answer me!"

No sound came through the radicom earphones. The camp was deserted!

## 12 Ghost Camp

“WHERE is everybody?”

Ken asked the question, raising his voice and increasing the broadcasting power of his radicom. He knew, as a shiver began to run down his back, that there would be no answer.

They heard no sound and saw no movement anywhere as they stood in the middle of the cluster of spacehuts. The hoarfrost formed from the wisps of methane and ammonia gases that streamed through the rings of satellites. The old footprints were covered by the tiny crystals of frost. A white stillness surrounded the two boys.

Dig walked slowly through the deserted street of the camp. He stopped at every hut and peered inside through the viewports.

“Empty,” he called to Ken. “All of them empty.”

In the kitchen, pots stood bubbling on the stove. Dig went inside and shut off the heaters.

“What happened here?” Ken asked as Dig came out of the hut. “They couldn’t just get up and go?”

“It looks like they did,” Dig said quietly. “Maybe they went out to search for us.”

Hope touched Ken for a moment. “Say, that’s right. We went away without telling anyone—” He stopped with a groan. “But the cook wouldn’t go out and leave his pots on the heaters.”

“No,” Dig said. “And someone would stand by to pick up any calls from us or the *Beagle*. No, it looks like everyone left suddenly—perhaps they were *forced* to leave.”

“Forced? A camp full of spacemen?”

“Let’s call the *Beagle* and see if they can tell us.”

Dig walked to the airlock of the control hut and Ken hurried in after him. Like the other huts, the control room was empty. They slipped out of their spacesuits.

“My oxytanks show 40 minutes of air left,” Dig said. “Take them into the storage hut and refill them.”

“Aye, mine are down to bottom, too.”

Ken took both spacesuits through the door to the storage room. Dig sat down at the instrument panel and switched on the communication system.

“Satellite Camp calling Space Laboratory Ship *Beagle*,” he spoke into the microphone. “Come in, please.”

There was no answer and he tried again. He waited but no sound came from the loudspeaker, not even the crackle of static. The communication system seemed dead.

He opened the panel and looked at the electronic equipment behind it. The main amplifier was gone. It had been neatly disconnected and taken out.

“Ken!” Dig called. “Come over here.”

When a moment later his friend appeared in the doorway, Dig pointed to the panel.

“Someone pulled out the main amplifier and—” He stopped as he saw Ken’s pale and frightened face.

“The air compressor won’t work. I can’t refill our oxytanks.

The pressure valve’s been taken out.”

“What about the extra oxytanks stored in there?”

“Gone,” Ken replied in a weak voice. “Every spare tank is gone.”

“That’s that!” Dig said disgustedly. “We’re trapped here.”

“Can’t you get the *Beagle*?”

“No.” Dig told his friend about the amplifier. “We can try with our radicomms, but I don’t think there will be an answer.”

Ken ran back into the storage hut and returned with their spacesuits. He took out the earphones and microphone, tossing the spacehelmet aside, and began to call the *Beagle*.



Dig watched quietly. "Well?"

"They don't answer." Ken looked up. "How did you know?"

"The only thing that could get every man out of this camp," the red-headed boy answered grimly, "is danger to the Beagle"

"That would explain it," Ken agreed, looking about uneasily.

"We have to go there, Ken... to the *Beagle*."

"How?" Ken glanced at the spacesuits with the almost empty oxytanks lying beside them on the floor. "The trip is at least two hours' jetting. There's not enough oxygen in the tanks to keep us alive that long." He finished with a hopeless shrug of his shoulders. "We can't do it."

"In spacesuits, no. But as M-robots, easily."

The red-headed boy's eyes sparkled with excitement as he made the suggestion. Ken met his friend's look and caught the enthusiasm.

"With ten times the strength of a man!" The blond boy jumped to his feet and patted the stiff hair on his head. "Why didn't I think of it!"

"Come on," Dig said.

They seated themselves in the chairs and snapped the metal bands around wrists and ankles. As they put the electrodes on their heads, Dig cautioned his friend.

"You'll feel a little strange at first but you'll get used to it. Whatever you want to do, *think* it. If you want to speak by radicom or by voice—sound or only to *me*—*think* it. The electrical circuits inside the robot will switch into the proper stage by themselves as fast as you can think."

"Aye, aye, sir," Ken nodded. He lay back in the chair. "If you and Jim can do it, so can I."

"Don't be so sure," Dig started to say. He stopped when he saw his friend lying motionless. Dig smiled, a little sadly, and shook his head. Then he lay back and thought himself into the robot.

“What’s been keeping you?” the robot Ken said over their special radio wavelength, trying to appear cheerful. They were now in the robot bodies, standing near the ruins of the mining tunnel.

“I was back in the spacehut talking to a dummy.”

“Well, come on.”

Ken, having twice covered the dangerous route in a spacesuit, found the trip easy in his robot body. Returning to the deserted camp they stopped only to look through some of the viewports. The two boys saw their own bodies lying motionless in the reclining chairs, and a weird feeling came over them.

“It doesn’t seem that that’s me,” Ken said, staring at his body inside the control hut. “I mean, I feel that I’m here... inside the robot. I feel like... like a ghost, Dig.”

“I have the same feeling.” Dig let his round crystal eyes sweep over the silent hills. “This isn’t just a deserted camp,” he said. “It’s a ghost camp-like kind you read about in the old stories from Earth.”

The trip to the edge of the ring was not as long or as dangerous as the one to the mining tunnel. The two robots, their golden bodies catching stray beams of sunlight, leaped from one ice-floe to the next. It was like crossing a partly frozen river. But below them was not water. It was a slate-gray space, giving them no feeling of up or down.

Tirelessly they leaped and jetted in the eerie glow of light reflecting from white surfaces. When they reached the Cassini Space-Gap, there were fewer ice boulders and less light. They caught glimpses of distant pinpoints of starlight.

The two boys stopped when they saw the spaceships and Dig cautioned his friend.

“Try to keep out of sight. We don’t know what we’ll find.”

They advanced slowly, hiding behind the huge ice and rock masses. They reached a point half a mile from the spaceships. Stretching out their metal bodies flat on a large, irregular block of ice, they crawled and peered

over the edge.

The *Beagle* and the *Starover* were drifting side by side, linked by the lines of the magnetic grapplers. For several minutes, the two boys watched in silence.

“There doesn’t seem to be anything wrong,” Ken said slowly. “But there’s also no one about.”

“It’s almost as though the ships were deserted... like the camp.”

“Shall we jet across?”

“No.” Dig raised his head and looked about. Stray pieces of ice were drifting through the space-gap. He pointed to one of these. “We’ll hide behind a piece of ice and jet over to the ships.”

They found a drifting ice satellite large enough to hide them and pushed it to the edge of the gap. It moved slowly, lazily.

Holding on securely, they released a short burst from their compressed-air jets. The satellite began to move out of the main stream of the ring.

“I’ll have another look,” Dig said. “You stay out of sight.”

“Aye, aye, sir.”

Dig crawled carefully over the icy surface until he could see the two spaceships.

“Going just right, Ken,” he said. “We’ll be there in a few minutes.”

“Are we going to bump?”

“Can’t tell. But we’ll be close enough to the nose of the *Beagle* to drop down to the hull. I mean,” Dig corrected himself, “to push away from this iceberg and move toward the hull.”

“Let me know when.”

They waited while the mass of ice drew closer to the spaceships. Just as they passed the hull of the *Beagle*, Dig pushed himself away.

“Now, Ken.”

Their push sent the ice drifting faster. The two robots

moved to the sides of the ship. “Land on your hands and don’t let your body hit the hull,” Dig warned.

There would be a sound inside the ship, they knew, if their bodies landed on the hull. But it could easily be mistaken for a mild collision with one of the floating pieces of ice.

The two robots waited for several minutes to *see* if the sound of their landing had been noticed. Then Dig pointed to the viewport at the bow of the ship.

“We’ll look inside through the viewport.”

They let their bodies float in space above the hull of the ship. Then grabbing the ring-bolts they pulled themselves forward. They skimmed along the surface of the *Beagle* like swimmers moving on the bottom of a lake. From ring-bolt to ring-bolt, they went slowly and cautiously, avoiding any contact with the sides of the ship. Each bump, they knew, would be heard clearly inside the *Beagle*.

At the edge of the viewport they stopped and inched ahead until they could look inside.

The control cabin was empty.

They pulled back and stared at each other, bewildered.

“No one standing watch,” Dig remarked.

“Is the *Beagle* a ghost ship—like the camp?” Ken’s voice was a strange mixture of fear and awe.

“Ghost or no ghost, we’re going inside,” Dig said.

They began the slow movement back, toward the airlock. A few feet away, the *Starover* floated motionless. For a moment the space explorers thought of trying to enter their own ship, but the risk of being seen as they jumped across to it was too great.

“We’ll be better off trying to get into the *Beagle*,” Dig decided.

They stopped to talk for a moment when they reached the airlock.

“There may be nothing wrong and we’re just a couple of spacedopes.”

“Maybe that’s what we are,” Ken said, but he didn’t sound as though he believed it.

“But—Jim, Greg and Maxie were almost killed. Twice, someone tried to stop this expedition and steal the Professor’s robots.”

“And made a ghost camp on the satellite.”

“The best thing to expect,” Dig said seriously, “is that we may walk into a mess of trouble.”

“Aye,” Ken said grimly. “I’m prepared for anything.” He held up his metal fist.

“Open the outer hatch.”

Ken pressed the release button. Before the hatch was fully open, he was already inside. Dig followed him quickly and closed the hatch.

“Took maybe four or five seconds,” Dig said. “Hope no one saw the signal flash.”

Dig started the air pumps going. The two boys waited, watching the needle on the indicator creep slowly toward the “ready” mark. They stared at the oval shape of the inner hatch, feeling the tension rise within them. The answer to the mystery that had been hanging over the expedition might be just on the other side of the door.

The needle, at last, reached Earth atmosphere. Dig glanced at his friend, nodded and pushed open the inner hatch. He walked confidently into the main passageway of the ship and Ken came briskly after him.

The two robots took one step, then stopped abruptly. Each heard the other’s startled thoughts flash across their special wave length.

Standing in the passageway and staring at the two boys with its round crystal eyes was a golden robot.

It was an exact duplicate of their own golden bodies.



## 13 The Saturn Robots

EVERYTHING remained blurred in Jim Barry's mind for a long time after he had returned to his own body. Stray words and all kinds of jumbled thoughts were mixed up in his head with the worried faces of Ken and Dig and Professor Norwyn.

He knew he was on a stretcher. He saw clearly through the plastic tent which covered him. The men had carried him through the airlock, past the cluster of spacehuts and fastened the stretcher to the platform of the sled. When Jim turned his head, he saw Greg Bayard lying on a similar stretcher only a few feet away from him.

Around and over his head, the boy saw the clouds of ice-floes tumbling and boiling like a stormy sky. The sled was moving. Jim lost track of time until he felt the jarring bump of the spacesled against the hull of the *Beagle*.

Hands raised the stretcher and passed it easily into the airlock. Then the plastic cover was taken off and Jim saw his father's anxious face bending over him.

"How are you feeling?"

"Haven't any feelings, Dad. I seem to have left my body somewhere..."

"Dr. Weston will take care of that," the scientist said. "He has found a way of treating this thing. He calls it robot-shock."

"Take him to the hospital," a voice said.

Jim felt the stretcher picked up. The walls of the ship's passageway began to slide past him and his father's face disappeared. In the hospital cabin they laid him gently in a bed. Then Dr. Weston was beside him.

"Drink this, Jim."

Jim drank from a squeeze-tube that was placed to his lips.

"Smell this, Jim."

Jim inhaled a sharp, tickling odor from a ball of wet

cotton stuck under his nose.

“Now just lie back and relax.” Dr. Weston brushed back the hair that tumbled down over Jim’s forehead. “You’ll be feeling better in an hour or so.”

“They’re all right, then?” Jim recognized the voice of Professor Norwyn.

“I know how to treat this now.”

“Good. I’ll go back to camp and see what we can do about finding my robots.”

Jim drowsed off. When he awakened later, he found Greg lying asleep on a bed beside him, and Maxie Styne sitting quietly on a metal stool.

“Feeling better?” Maxie asked as soon as he saw Jim open his eyes.

“Aye.” Jim nodded and suddenly became aware of a tingling sensation all over his body. He raised first one hand, then the other and looked at his fingers.

“Yep. You’re back in your own body now. For sure. Doc’s a great guy. You’ll be up and around in a couple of hours.”

“Then I’ll be able to join Dig and Ken at the camp...”

Maxie shook his head. “I’ll tell you the truth, the Doc’s a little fussy about that. He’s going to keep you on hospital rest for a long time.”

“But I’m beginning to feel fine...”

“Me, too,” Maxie said, shrugging his shoulders. “But Doc won’t let me go spaceside.”

“Where is my father?”

“In his laboratory working on that Methane-X stuff.”

“Professor Norwyn?”

“Went back to the camp a long time ago, right after you fell asleep.”

Jim closed his eyes and tried to arrange the thoughts in his head. Nothing seemed to make sense to him. He wished Dig and Ken were with him. Perhaps the three of them, talking over everything that had happened, might find some clue. On the spaceship—or in the camp on the



satellite—was a clever and dangerous enemy. Perhaps more than one...

The sound of something hard bumping against the hull of the ship made Jim open his eyes. Greg sat up, startled.

“Maxie!”

“Hi, pal. Feeling all right?”

“What was that?”

“The bump? A chunk of ice or maybe the spacesled coming back.”

Greg lay back. “For a moment, I didn’t know where I was. I’m feeling fine now.”

Maxie rose to his feet and pushed himself away from the stool. He floated to the viewport and looked out.

“The spacesled is back,” Maxie said. Then, with growing excitement he added, “Say! That’s Professor Norwyn out there... And he’s brought back the two robots!”

“Great!” Jim sat up in bed, happy at the news. “Ken and Dig must be using the robot bodies.”

“They’re going to the airlock.” Maxie pressed his nose against the glassteel of the viewport, trying to see. “Guess they’ve gone in.”

He started to turn away from the viewport but stopped abruptly, frowning.

“For a moment,” he said, puzzled, ‘I thought there were more than two robots.” He shook his head. “Can’t be.”

“Guess Doc Weston is right keeping you on hospital rest,” Greg laughed. “You’re seeing things.”

Maxie turned to look through the viewport again and suddenly stiffened.

“There are more!” he cried. “Two went in... now there are three out there... no four...” He turned a face drained of color and said in a strangling voice. “Greg! Come and look!”

Greg pushed himself out of the bed and floated

across the cabin.

“Where? Let me see...” He peered through the glassteel, then fell back. “There are four outside...”

“The others went into the airlock!”

Greg stumbled to the door and pulled it open. Followed by Maxie and then Jim, he stepped into the passageway.

“Hey! What’s going on?” Greg cried. “Where did these robots come from?”

For a few moments, no one answered Greg. One robot was holding Professor Norwyn firmly by the arm. Another stood over Keith Barry, forcing the scientist to put on his spacesuit. Two more robots were herding the crew members and the laboratory technicians down the passageway to the cabins near the stem of the ship.

Greg approached one of the robots. “Who are you men?” he asked.

The robot turned his glittering crystal eyes on Greg. There was no expression on the hard metal face.

“We are not men,” he said in a clipped, toneless voice. “We are Sensitronic Robots, here to protect you.”

“Then release Professor Norwyn,” Greg demanded. “If you are S-Robots, you must obey a human being.”

“We cannot break our Third Commandment,” the robot said calmly. “You humans are foolishly putting your lives’ danger. Please do as you are told. Otherwise we shall use force to save you.”

The airlock hatch opened and four more robots entered the ship. Without a word, two turned and went to Dr. Barry’s office. The other two went into the ship’s laboratory.

Jim pushed Greg aside. “Where are you taking my father?” the boy asked, pointing to the scientist. “And Professor Norwyn?”

“They shall be under our protection,” the robot replied. “Return to your cabin and remain there.” Jim remained standing, his face grim, his fists half raised in sudden anger.

“Now, Jim,” Dr. Barry said quietly. “Do as you are told.”

Jim faced his father. “But, Dad—they’re taking you away!”

“I can take care of myself. Besides, these robots cannot hurt a human being.” The scientist gave his son a warm smile. “And you, Jim, have an important job to do now—get well.”

“I feel fine, Dad.”

“We’ll talk about this later.” Keith Barry slipped the space helmet over his head.

From the laboratory, the robots began to bring out the equipment and materials with which Dr. Barry had been experimenting. Jim glanced at his father and Professor Norwyn, then stepped back helplessly.

“Come inside.” Greg took the boy’s arm and pulled him into the hospital cabin. He shut the door and leaned back against it. “I didn’t know the professor had been making Sensitronic Robots,” he added in a weak voice.

“We knew he was planning t’make some,” Maxie said. “But they’d be locked up in his lab on Earth. What are they doing way out here in Saturn’s rings?”

“You heard what he said,” Greg whispered, turning to his friend. “The Third Commandment. Somehow they learned we were in danger and came after us...”

“Then they’re not obeying someone’s orders?” Jim asked.

Greg shook his head slowly, frowning. “I don’t think so. They’ve got Professor Norwyn prisoner, too. Believing that we’re in danger, they’ve decided to act on their own!”

Jim watched Greg’s pale face closely. “That means... that means the robots have somehow revolted!”

“That’s about it,” Maxie nodded.

“Can’t we do something?”

“No.”

“We’re prisoners!” Jim exploded. “Captives of a

bunch of electronic machines!”

He started to pace the cabin but after two or three steps he lost his balance. A startled expression on his face, the boy sailed through the air. Greg caught his leg.

“Get into bed and rest,” he said, pushing Jim down. “We should be happy that there’s nobody who’s trying to destroy us...”

“Maybe that would be better,” Jim said. “You can guess what a human being might want to do. But with robots? How can you tell what they’re thinking?”

“We know one thing,” Greg said quietly. “They’re holding us prisoners to protect us from some danger.”

“What danger?”

Greg scratched his chin thoughtfully. “It could be something in Methane-X. Or in Metalex... or here in the Rings of Saturn. But the sure thing is that the S-Robots want to protect us.”

“We’ll just have t’wait and see,” Maxie said with a shrug of his shoulders.

They waited in the quiet cabin for a long time. Then they heard the thump of the spacesled against the ship’s hull. Hopefully they crowded to the viewport.

“Maybe Dad or the professor is back...”

But the sled was filled with men in spacesuits. Two robots pushed the men toward the airlock.

“They look like the men who were at the camp satellite,” Jim said. He turned and glanced at Greg and Maxie. “Dig and Ken should be among them.”

“I didn’t see anyone who looked like...”

Jim ignored Maxie’s words. He hurried to the door and flung it open.

“Dig? Ken?” Anxiously he watched the faces of the men as they came through the airlock and took off their spacehelmets.

“They be not with us,” one of the men told the boy.

“The robots took them away?”

The man shook his head. “They be not in camp when

the robots came.”

Quietly Jim went back to the hospital cabin and told Maxie and Greg what he had learned from the man.

“Then there may be some hope,” Greg said.

“For what?” asked Maxie.

“That they might get a message out to the Space Guards. Or even free us...”

Maxie laughed. But there was no joy in the sound that came from his lips.

“Sure... free us! Get control over the S-Robots,” he said. “But aren’t we forgetting something? The robots may be right! We may be in great danger—and only these S-Robots can save us! By stopping the robots Dig and Ken might... just might... bring us all to destruction!”

Maxie turned away and looked out of the viewport. A hush settled through the cabin. More than the other two, Maxie respected the robots and the cold, unemotional thinking that flashed through the circuits inside the computer minds.



## 14 The Five Commandments

IN COMING through the airlock of the *Beagle*, Dig and Ken were prepared for almost any surprise. But to find themselves face to face with a strange robot was more than they had expected. A shocked gasp flashed between the two boys.

Instantly Dig thought of escape. He tensed, ready to leap back to the airlock. Then he heard Ken's startled voice coming loud and clear over the special radio wavelength they used to talk to each other.

"It's a robot, Dig. And he's exactly... exactly like us!"

Dig stood perfectly still. Perhaps the man in the robot did not hear them gasp. But now, Dig thought, now he surely heard Ken's words...

The robot slowly turned his crystal eyes on the two boys. For a moment he stared at them silently. Then he turned and continued down the ship's passageway.

The two Space Explorers remained standing, puzzled.

"Didn't he hear us?" Dig sent his words to Ken softly.

"I'm sorry. I didn't realize..."

"Never mind that now," Dig broke into his friend's thoughts. "Pretend we're doing something."

"Doing what?" Ken asked, a little annoyed and puzzled.

"Anything. Just make believe we're very busy."

"All right."

Ken turned his robot body about slowly. His eyes caught sight of the safety box beside the airlock. Containing emergency safety devices, the boxes were welded to the bulkheads throughout the ship. Inside were sensitive instruments that measured the air pressure, temperature, and amount of oxygen circulating through the spaceship.

"How about inspecting the safety instruments?"

"Good idea," Dig said.

Ken opened the lid of the nearest box and looked inside.

“Now tell me why you want to do this?”

Dig moved closer to his friend so that the two robots stood side by side, looking into the metal box.

“The ship’s full of robots.”

“Full of robots!” Ken gasped.

“Take a look. But be careful.”

Ken moved his head slightly so that he could steal a quick glance up the passageway. Two robots were standing guard at the entrance to the control cabin. Both of them had their round, unblinking eyes fixed on the boys. Ken shifted carefully to look toward the stem, where the crew’s cabins were located. Two more robots stood there, eyeing them.

“Where... where did they come from?”

“I don’t know,” Dig said. “Move on to the next box.”

Ken closed the lid of the safety box and shuffled some ten feet to the next one in the passageway.

“The first robot we met,” Dig said, “didn’t tune in on us.”

“Didn’t or couldn’t?”

“Couldn’t, I’m almost sure.”

“Does that mean we can talk to each other without them hearing us?”

“We’re doing it and nothing’s happened...”

“Yet.”

“All right, yet. But there’s something very strange...”

“Everything is strange. I’m getting the spacewillies. In plain words, I’m scared.”

“So am I. But, Ken, that robot we met took us for granted and didn’t try to speak to us and tell us to get out of the way or...”

“Like any human being would.”

“Yes. A human being would have made some kind of remark... he’d say or do something...” Dig groped for



words to describe his thoughts.

“You mean,” Ken said slowly, “that there wasn’t a human being in that robot?”

“Yes, that’s just what I mean.”

Ken closed the lid and moved down the passageway to the next safety box. They were only a few feet from the two robots guarding the control cabin.

“Should we go inside?” Ken asked. “We can lock ourselves in the control cabin and hold the ship.”

“No. We’ve got to find Professor Norwyn or your father or Jim... Someone who can tell us what happened here and in the camp.”

The two boys continued slowly down the passageway. As they passed each cabin, they glanced inside. All were empty. At the ship’s galley, a robot was working over several pots on the cooking stove while a second robot was opening cartons of emergency food rations.

“Robots don’t eat,” Ken remarked softly, “so we know there are people on board.”

“Ken...”

“Yes?”

“The hospital cabin! Jim, Greg and Maxie should be there.”

“Aye!” Ken’s voice had a cheerful note in it for the first time since the two Space Explorers had left the satellite camp.

“Find something wrong with the safety box, then go in.”

“Aye, aye!”

A few minutes later the two boys reached the safety box beside the oval-shaped door of the hospital cabin. Ken opened the lid and poked his finger inside. Then he boldly opened the door of the cabin and went in. Dig followed him quickly and closed the door.

Three suspicious faces turned to the two robots.

“What do they want?” Greg Bayard asked.

“Hello, Greg,” Ken said, using his voice. As

amazement spread over the man's face, the boy continued, "Hi, Jim... and Maxie." Jim leaped out of bed and flew across the cabin. He wrapped his arms around his brother and hugged the huge metal body.

"Ken!"

Then Jim floated through the air to throw his arms around Dig's robot.

"Dig!"

"By the Rings of Saturn!" Greg exclaimed, rubbing his chin thoughtfully. "How did you recover our robots? Where did you find them..."

"Aye, and how'd you manage t'get here?" asked Maxie.

"What happened at the satellite camp? We saw the men brought here as prisoners..."

"Whoa! Hold your rocket-fire!" Dig interrupted, laughing. "I'll answer your questions if you give me a chance."

"Go ahead," Jim said, grinning into the hard inhuman face of the robot. "It's you, Dig... only I can't get used to seeing you as a robot! Big blank eyes and no freckles..."

Dig stopped him with a quick gesture of his hand. "There's no time for that now," he said.

Speaking quickly, but leaving nothing of importance out of his account, Dig told them what had happened. There was a quiet confidence in his voice that spread to the others and cheered them up.

"Now, we may have a good chance of taking over the controls of this ship," the boys finished. "But first we want to know what happened here and if you know anything about the man trying to stop our expedition."

"Who is giving these robots their orders?" Ken asked.

"No one seems to be," Jim replied. His face became grim. "I wish someone was."

"These are not Man-Robots. They're sensitronic," Greg Bayard said.

“You mean they have brains and think for themselves?”

“That’s the way we’ve figured it,” Greg said.

“But such robots are made so that they *must* obey human commands,” Dig said.

“Not always... not when they are obeying a higher command. These robots are convinced we are doing something that will harm us—or other human beings. Under the Third Commandment they must—”

“Third Commandment?” Ken stopped him. “How many are there?”

“All these Sensitronic-Robots must obey Five Commandments which have been built into their electronic brains. The burn out and die if they disobey any Commandment.”

“Greg, tell us everything you know about the Five Commandments,” Dig said, seriously.

“I know them by heart,” said Greg. “Professor Norwyn has been working on such robots for a long time and I’ve helped him occasionally. He plans to send these robots to the Sun...”

“The Commandments, Greg. We may not have too much time for talk.”

Dig slipped over to the door and listened carefully. Then he came back and nodded to the man.

“The First Commandment says: *A robot shall not harm a human being.*”

“But they kidnapped Dad and Professor Norwyn!”

“To protect them, Jim,” Greg answered quietly. He turned to Dig’s robot and continued. “The Second Commandment says: *A robot shall not permit harm to come to a human being.*”

“This Commandment,” Maxie put in, “is against ordinary dangers.”

“The robots are obeying the Third Commandment,” Greg said. “*A robot shall not permit a human being to bring harm to himself.*”

“And that gives them the power to disobey any orders we might give them,” Maxie said.

“The Fourth Commandment says: *A robot must obey all orders given him by a human being, except when such orders break any of the first three Commandments.*”

“And that’s why we’re prisoners,” Jim added with a hopeless sigh.

For several minutes the cabin was quiet. They heard the sound of metal footsteps along the passageway and waited. But the steps moved past the door and disappeared.

“What’s the Fifth Commandment?” asked Dig.

“*A robot must protect himself from harm, except when such action breaks any of the first four Commandments.*” Greg pushed himself into his bed. He closed his eyes for a moment, then added, “Professor Norwyn wanted to make sure his robots, once they were let loose, could never harm human beings.”

“Did you know he had brought the robots here?” Dig asked.

“I didn’t even know he had already built them,” Greg replied. “And I don’t think he brought them here. He’d have used them to find our M-Robots when we were knocked out.”

“You mean they came after us on their own?”

Greg opened his eyes and looked at Dig’s robot face. “Yes, once they were convinced we were in danger.”

“But someone must have convinced them of that,” Dig said carefully. “Someone told them!”

Greg sat up quickly. “That’s right!”

“All right. Professor Norwyn and Dr. Barry aren’t here,” Dig said. “We have to decide for ourselves what we’re going to do.”

“The first thing is to get to the control room and call the Space Guards...” Ken started to say.

He never finished the sentence. His keen robot ears caught a slight sound outside in the passageway. Ken

turned just as the door opened and a robot stepped into the cabin.

A tense stillness suddenly filled the cabin. The robot's cold eyes swept around the room. He looked at the three human beings for a fraction of a second, then ignored them.

"You have not reported," the robot said by radicom. His voice had a toneless, mechanical quality. "Master Control commands you to call at once."

Ken's voice came over the special wavelength. "What does he want us to do?"

Dig had no idea of what was wanted. He had to gain time, a few seconds. He decided to risk a change in subject.

"In front of human beings," Dig said speaking with his voice, "it is bad manners to use the radicom."

The robot was puzzled. He seemed to hesitate. "I know of no such command," he said. But he used his voice and Dig gave a mental sigh of relief.

"You have asked us to call Master Control," Dig said, imitating the Sensitronic-Robot's toneless manner of speaking.

"That is the command."

Dig cast a quick glance at the others in the room. He was hoping for some help from Greg and Maxie who understood the robot mind better than he did. But the two men stood watching silently.

"Why does not Master Control reach us directly?"

"It has tried," the robot said. "From the time you came on board the ship and we reported you, the call signal has been on."

"I did not hear it."

The robot turned and looked at Ken.

"I did not hear it," the boy said.

"My orders are to command you to call. If you are not able to do it," the robot said, there is something wrong with your electronic circuits. I will take you to the

laboratory for repairs.”

“Don’t let them!” Greg cried suddenly. “They will take you apart! You will die!”

The robot turned his expressionless eyes on the man. “When a robot cannot hear Master Control, he is not operating properly. He must be repaired or destroyed. That is the rule.”

The robot turned back to fix his eyes on Dig. “If you refuse to obey, Master Control will send a powerful current through your brain. It will bum out your circuits.”

Dig stood still. A frightening thought flashed through his mind.

Could Master Control destroy him by burning out the delicate electrical wiring inside his robot body?

## 15 Decoy

FOR a moment Dig was tempted to think himself into his own body back at the satellite camp. But that would have meant giving up the M-Robot body—the one chance left them to win over the mutinous Sensitronic Robots.

If he was going to do something, he would have to do it quickly. Already he sensed the growing suspicion in the sensitronic brain of the robot facing him.

“I will call Master Control,” Dig said aloud. But over the special wavelength, he called to Ken, “Try to slip behind him.”

“Aye, aye,” Ken replied. He understood what was in his friend’s mind. Slowly he began to shift his position, inching around the waiting robot.

“Master Control informs me that no message is coming from you,” the robot said after several seconds of silence.

“I am calling,” Dig said. He moved to one side slightly and was pleased to see the robot follow him with his eyes.

“Master Control is not receiving your call.”

“There is some kind of interference,” Dig said.

“I find no interference. You are not telling the truth.”

“Oh, but I am.” The very human expression in Dig’s voice surprised the robot.

“Why are you trying to imitate a human being?” the robot asked. “It is against all our rules. I must report your actions to Master Control at once for—”

Ken was in position behind the robot. He hesitated for a second, balancing his powerful robot body, then swung his hard metal fist with all his might.

The blow crashed against the base of the robot’s head. It raised the robot clear off the deck and hurled him across the room. With a dull, metallic thud, the robot smashed into the bulkhead on the other side and bounced back.

As the helpless robot floated in the air, Dig pointed to

the door.

“Out!” he cried.

“No! Walk slowly,” Greg warned quickly. “Pretend you are taking us out under guard.”

“You’re right, Greg,” Dig agreed. “I... I guess I was too excited to think straight.”

As soon as they were in the passageway, Ken closed the cabin door and locked it.

“How much time do we have?” he asked Greg.

“Not much. The ‘Master Control’ these robots report to will be aware something has happened to one of them. The others will be alerted.”

“Head for the control cabin,” Dig said, leading the way.

He had hardly taken more than a dozen steps when the two robots guarding the control cabin began to advance toward them. A third robot came out of a nearby cabin.

“Looks like they’ve been warned,” Greg said.

“Turn back,” Dig said. “But don’t run....”

They turned about and stopped. Three more robots were moving toward them from the stem section of the spaceship.

“We’re trapped,” Ken cried.

“Not yet. The airlock! Jim, Greg, Maxie—get spacesuits! We’ll spacejump to the *Starover!*”

“We’ll never have time to get into the spacesuits,” Maxie said.

“Ken and I will hold them back! Hurry!”

Jim opened the storage locker beside the airlock hatch and took out a spacesuit. He began to put it on hurriedly.

“Let Maxie and me handle this,” Greg said quietly. “They can’t hurt us...”

“We’re human, too,” Ken said. “They won’t—”

“To them you’re just two other robots,” Greg cried. “Not human beings! And you’re dangerous robots who have gone crazy.”

“Aye,” Maxie said calmly. “They’ll try to kill you.”





He pushed himself past Ken and faced the robots coming at them from the stem.

“You can’t sacrifice yourselves for us...” Ken protested.

“Not for you,” Greg said. “For the expedition and for a chance to stop these robots. You three must get away!”

“Aye!” Maxie said.

He leaped suddenly, flinging his body like an arrow through the air. An instant later he crashed into the foremost of the three robots.

Startled, the robot stood still, blocking those behind him. Maxie moved quickly. As soon as he recovered his balance, he flung himself at the robot’s feet and held on grimly.

“Good work, Maxie!” Greg shot a glance at the Space Explorers. “You’ve only a few seconds! Move fast!”

The next instant he turned and threw himself at the robots coming from the other end of the passageway.

Jim was putting on his spacehelmet. Ken pushed his brother into the airlock and jumped in himself.

“Come on, Dig!”

Pausing only long enough to scoop up two extra oxytanks, Dig hurried into the airlock and slammed the hatch shut.

“All set?” Ken looked over his brother’s spacesuit.

“Aye,” Jim said over the radicom.

“Here we go!”

Ken pulled the emergency lever and the outer hatch popped open. The air rushed out with a sharp hiss, sucking the two robots and Jim into the vacuum of space.

Dig stopped the dizzying spin of his robot body and looked about. The *Starover* was drifting silently behind him. He turned and released a spurt from the jets in his back.

“There’s the *Starover*!”

Ken and Jim followed him across the short distance to their own ship. Dig jetted and steered his body toward the airlock.

Behind them; they saw the outer hatch of the *Beagle* swing shut.

“They’re getting into the airlock,” Ken called out.

They were almost at the *Starover* when suddenly its airlock opened. The golden figure of a robot emerged.

“Back!” Dig cried. “Robot on the *Starover!*”

Almost at the same instant, the three figures brought up their knees, turning their bodies into a sharp somersault.

“Our only chance is to hide out in the ring!” Dig called.

He released a long, powerful blast from his jet and saw the two spaceships rapidly grow smaller. The air that blasted from his back froze instantly, leaving a long white trail behind him.

Jim and Ken followed his example and the three hurtled through space toward the distant mass of drifting satellites of ice.

“They’re coming after us,” Ken called.

Behind them they could *see* the golden figures of the robots tumble out of the *Beagle’s* airlock and shoot toward them. There was no way to judge the distance they had come. Only the fact that the spaceships continued to grow smaller in size indicated that the three boys were moving.

But the size of the robots remained the same. For the moment, the Space Explorers knew they were holding their own. Already the first stray ice mountains were moving past them. A little farther on, the rings became thicker and they might be able to hide.

Dig watched the pursuers for a few moments. They appeared to be growing larger.

“I think they’re gaining on us,” he said.

“It’s me,” Jim groaned. “You robots were built for space work. But I can’t go any faster...”

“Never mind,” Ken encouraged his brother. “We’ve got a good start on them. We’ll find cover before they come much closer.”

The ice-floes were now so close they had to dodge from time to time to avoid crashing into them. For Dig and Ken, with their hard robot bodies, an occasional collision meant little. It was different with Jim.

“Look, I’ll have to slow down a little,” the boy said. “If I crash, I’m liable to kill myself....”

Jim had already suffered some nasty blows from the

drifting masses of ice. The farther they went into the ring the more difficult and dangerous the way became. He could not keep up the pace much longer.

“I forgot you’re only human, Jim,” Dig said. “I’m sorry. Lees slow down.”

They turned their bodies over at the same time and jettied to brake their speed. Behind them the figures of the robots increased in size rapidly.

“They’re catching up,” Ken said.

“Look, the robots can’t hurt me,” Jim said. “They even have to *save* me. Why don’t I just give up and—”

“No!” Ken snapped angrily. “Getting away is just part of what we have to do... the easy part! We’ve got to find Dad and Professor Norwyn. With their technical knowledge, we have a chance to save this expedition from these crazy robots.”

“Don’t be so sure,” Jim replied gloomily.

Nothing more was said for several minutes. They were coming into an area thick with large satellites and dodging became more difficult. They had to slow down again. Presently, they could no longer continue their straight flight. They were forced to land on each large, jagged satellite and crawl over the ice to the other side before space jumping to the next mountain of ice.

The pursuing robots were now so close that the boys could see the hard, inhuman faces and the round, staring eyes.

“It’s just a matter of time before they catch us,” Jim said. “I’m going to stop—”

“I’ve got a better idea,” Dig called.

“Any idea is better than Jim’s,” Ken growled.

“See that large satellite ahead?” Dig pointed to a huge mass of rough ice.

“Aye.”

“We land on that. Then you two go to your right and fin a spot to hide.”

“What good is that?” asked Jim.

“I’ll go left and make sure the robots see me.”

“What do you want to do? Be a spacehero?” Ken said. “If they catch you, they take you apart screw by screw!”

“That’s the chance I’ll have to take. But if they catch me I’ll send myself back into my body at the camp.”

“All right,” Ken agreed reluctantly. “And what do we do?”

“As soon as the way is clear, go to the camp. I’ll meet you there.”

“The robots may head for the camp, too,” Jim said.

“Hide the robot,” Dig told his spacemates. “Return to your human body. The robots will not harm you then.”

“Sounds like it might work,” Ken said.

Dig tossed one of the oxytanks to the boy. Ken snagged it.

“Let Jim use that for extra jetting power if he needs it. I’ll keep one oxytank for extra power, too. It will give me more speed.”

“All right. The luck of space be with you,” Ken murmured.

Jim and Ken jetted away, spacejumped to the next ice-floe and crawled out of sight over the rim of its horizon. Dig remained standing in plain view, waiting for the robots.

They would see him soon, Dig thought, and then the chase would begin. Jim and Ken needed less than an hour to reach the camp. He would have to draw the robots away in the opposite direction, making them chase him for about thirty minutes.

He glanced about at his weird surroundings. The huge masses of ice were everywhere, shifting and crashing soundlessly.

He watched as the robots drew closer. One of them suddenly changed his course and jetted furiously toward Dig. The others followed him almost immediately.

“They’ve seen me!”

Dig kicked against the ice surface of the satellite and dived headfirst into space. An extra burst from his compressed air jets shot his body to the next satellite. He paused only long enough to make sure the robots were following him then jumped again.

He had no time to look back now. The robots were hard after him. Dig leaped and jumped and bounced from one ice-floe to the next with reckless speed. The quickly freezing air from his jets marked his trail for the robots to follow.

The minutes dragged slowly, endlessly, as the relentless chase went on. Dig was drawing the robots farther and farther away from the camp.

But finally, Dig judged, he had gone far enough. He needed a place to hide. A short distance ahead a large satellite looked promising. Its surface was rougher and more uneven than that of its neighbors. Cracks and crevices could be seen everywhere and, toward one end, there were huge, rugged mountains of ice and snow.

Dig twisted his body, steering himself toward them. To increase his lead, he opened the valve on the oxytank and used the air pressure in addition to his robot jets.

Once on the satellite, he scrambled over the horizon to the opposite side. Quickly, he found a snow-filled crevice and crawled into it.

Then he sprayed his footprints and his metal body with air from the oxytank. It froze instantly, covering up all traces of his passage with a soft white snow.

He was perfectly camouflaged, he knew, merged into the surrounding whiteness so completely that he was invisible. The robots would speed by, he was sure, and then he'd double back and join his friends at the camp.

But the robots did not pass on when they reached the end of the satellite where Dig was hiding. They stopped and peered with their crystal eyes in all directions.

There was no trail to lead them on. They stood still for few minutes, then spread out and began to search the surface of the satellite.

Dig waited tensely, gripping the metal oxytank in his hands. He was ready to fight for his life.

## 16 The Hidden Spaceship

JIM and Ken jetted only long enough to slip out of sight. Hidden by a mountain of ice, the two boys stopped and looked at each other.

“I don’t like leaving Dig out there alone to face the robots,” Jim called over his radicom.

Ken turned his robot eyes on his brother. “How do you think I feel about it?” he asked. Then added, “I feel like a deserter.”

“Then let’s go back.”

“No, that won’t help.”

The two boys drifted side by side in space, surrounded on all sides by the endless stream of white satellites, unwilling to leave.

“It won’t hurt to look,” Jim suggested.

“I guess not,” the younger boy agreed.

They jetted themselves to the surface of the satellite, then began a slow crawl over the snow. They stopped and lay still when they saw Dig’s robot figure in the distance.

He was standing still, looking about him. Suddenly he dived and jetted away. In a moment he was gone, lost among the countless satellites of the ring.

“The robots must have seen him,” Ken said.

“Aye.”

They waited, and a minute later four robot bodies flashed by in pursuit.

“Now Dig is on his own. The chase is on,” Ken said. “Let’s go. We’re wasting the time Dig’s gaining for us.”

“Which way?” Jim turned his head inside the glassteel globe of his spacehelmet and looked about. “Every direction looks the same to me.”

“It is,” Ken agreed. “But if you set your radicom to long range, you’ll pick up the camp signal.”

“Ah! I have it now.”

“Then come on.”

The two boys made their way through the great field of ice satellites, two lonely figures scrambling and jetting through the swarming white masses. It was an hour before they sighted the cluster of huts in the distance.

Ken stopped and pointed, “There it is. Looks as quiet as when we left it.”

“I’ll admit now I’m tired,” Jim said. “Let’s hurry—”

“A couple of robots might be waiting for us there.”

“I almost don’t care. I want some sleep...”

The camp was deserted, the spacehuts empty when the two boys cautiously explored the camp. Everywhere the snow was smooth and white. The old footprints had been hidden by the freshly forming hoarfrost.

Inside the control hut the bodies of Dig and Ken lay motionless on their reclining chairs.

Ken looked at his body on the chair and shook his massive robot head.

“I get an eerie feeling,” he muttered, “Every time I see myself from... from outside my body.”

“Before you get out of that robot body,” Jim said, taking off his spacehelmet, “find a good hiding place for it.”

Ken looked about the room. “The storage hut?”

“First place anyone would search.”

“And a natural place to find a spare robot body.”

Jim gave a weak grin. “If they come here,” he said, “we’re as good as lost anyway. Use the storage hut.”

Ken lumbered through the connecting door into the storeroom. Jim put his spacesuit away and stood looking down at the still figures on the chairs. Ken seemed relaxed, almost asleep. But on Dig’s freckled face tiny beads of perspiration formed.

Jim reached down and gently wiped his friend’s face. It felt strangely cold.

*What’s happening to him out there?* he thought



anxiously.

Dig lay buried in the snow for a long time, one partly uncovered eye watching the robots. The four golden figures stood in a group for a few minutes, probably discussing his disappearance. Then they spread out and began to search the satellite.

The careful way he had covered all his tracks saved Dig from discovery—together with the fact that the robots avoided stepping into the soft snow which filled the crevices. Several times they passed within a few feet of his hiding place.

Finally they grouped again. They were talking and Dig tried to tune in on their conversation. He could pick up no Signal.

“They must have a special wavelength on which they talk among themselves and to Master Control... whatever that is,” Dig decided.

He remained still as the robots separated and began to move off in different directions. Then, one by one, they jetted to nearby satellites and continued the search for him there.

Dig waited and after five minutes, stirred cautiously. The snow fell away from his metal head and he looked up. The robots were not in sight.

He crawled out quickly and used the air in his oxytank to cover his tracks. Near him the snow had been trampled by the robots. Dig jumped lightly to land on their footprints.

The last part of the chase had been so swift and wild that he had lost all sense of direction. Dig looked about him, trying to remember the way back. Everywhere, the Rings of Saturn surrounded him like a vast, churning cloud of snow and ice.

A set of footprints pointed toward the rugged ice mountains several hundred yards away. He eyed the rough mounds of ice thoughtfully. Hidden among them, he'd have time to plan his return to camp. Here in the open, the robots could see him from the other satellites.

He turned and followed the trail of footprints until the icy crags loomed around him. For a few minutes, at least, he was safe there. He turned his mind to the camp radio signal and soon heard the faint but steady beep. Turning his body around slowly, he sensed the direction from which it came.

But as he turned, he noticed that the footprints he had been following had stopped. The last impression was deeper than the others.

“He jumped up from here,” Dig thought, and raised his head. He found himself looking into the round, staring eyes of a robot.

“I have been waiting for you,” the robot said, using the radicom. “We knew you were hiding somewhere close by.”

“Where are the other robots?” Dig was thinking furiously of some way of escape.

“They are searching the satellites nearby. I have already called them. They will be here in a few minutes.”

The robot was standing on a ledge of ice, about twenty feet above Dig. He made no move to jump down. Dig shifted away slowly, looking up at the robot.

“You know I am not a Sensitronic robot like you,” the boy said. “I am a Man-Robot.”

“I have never heard of such robots.”

“I am a human being inside this robot body.”

“You *think* you are a human being,” the robot explained. “But that is because you are not functioning properly.”

“No, that’s not it at all. I *really* am a human being. My name is Digby Allen and I am a Space Explorer.”

“And the other robot? Is he a human being?”

“Aye, he is.”

“And the boy in the spacesuit? Is he human or a robot?”

“Human, of course. All three of us are—”

“Where are they hiding? We can help them if you tell

us.”

“Somewhere in the Rings of Saturn,” Dig said. If he had a human face, he knew he’d be grinning. The robot was trying to outwit him.

“So you are a human being?” the robot said. There was a slight change in his manner which Dig sensed immediately. “Of course you are a human being, if you believe it.”

“I *know* it,” Dig said desperately. “Believe me, please.”

“Then you really are a human being,” the robot said slowly. “Call your friends and we shall all return to the spaceship. Our First Commandment will not permit us to harm humans. You know that...”

The robot was trying to humor Dig, treating him as a little child. Inwardly, Dig grinned, though his hard metal face remained stiff and without expression. The robot was actually lying to him—and suddenly Dig felt a chill pass through his mind. Robots never lied to humans. This robot was simply trying to gain time until the others arrived.

Dig decided to act quickly. “Since you know now I am human, you must obey me.”

“That is true,” the robot said, “if your orders do not force me to break my Commandments.”

“Stay where you are. I am leaving.”

Dig turned his back to the robot and walked away. He took three rapid strides, then threw himself sideways.

At the same instant the robot’s body hurtled past him.

As Dig had expected, the robot had leaped to attack the moment Dig’s back was turned.

“So you dare attack a human!” Dig cried.

“You are not human. You are a robot with a disordered mind. You are dangerous to all human beings and must be destroyed!”

The robot flashed the words to Dig by radicom even

as its body crashed into the ice. In an instant, the robot whirled and flew at the boy.

Dig tried to dodge but he was a fraction of a second too late. The robot's hard body struck his shoulder and knocked him spinning off his feet.

Wildly the boy tried to regain his balance. Like a tiger, the robot was on top of him. The metal fists rained smashing blows on Dig's head. Dig staggered under the fierce attack, slipped on the ice and fell backward.

The robot leaped at Dig. The boy lunged to the side and jetted away from the surface. The robot followed swiftly. Kicking himself upward, he landed on Dig's back. Quickly he wrapped his legs around the boy's waist. Then, in silent fury, the robot began to hammer Dig's head with both fists.

The boy felt no pain, but each blow jarred him violently. He kicked and twisted and tried to turn. The robot held on grimly. Handicapped by the oxytank which he held in one hand, Dig could not ward off the blows.

Silently the fight raged among the jagged, weird peaks of ice and snow. Dig jetted, trying to free himself and both robot bodies rose and bounced against the walls of ice.

"He'll kill me!" Dig thought, frantically. "He thinks I'm a danger to human beings—and he must destroy me."

He realized that he could not hold out much longer. The steady beating was making him groggy. Lumps of ice, gray space, eerie shapes of mountains... they whirled dizzily before Dig's eyes.

With a last desperate effort, Dig twisted sideways. At the same time, he swung the oxytank with all his remaining strength.

The hard edge of the tank struck one of the robot's crystal eyes. The lens shattered and the pieces shot away in all directions.

The robot stopped suddenly. For a moment he seemed completely stunned. His legs loosened their grip

around Dig's waist. Instantly, the boy broke free and shot away.

The robot paid no attention to him. He raised his hands to cover the broken lens, then began to turn in a slow half circle, trying to see out of his remaining eye.

Dig did not waste any time. The other robots would be there in a few seconds. He released a sharp blast from his air jets and then let his body drift among the craggy shapes of the ice mountains.

But once out of sight, Dig flattened his body on the surface and looked back. The robots were arriving, one by one. They gathered around the one with the broken lens and stood perfectly still.

"They must be talking among themselves," Dig thought. "Or perhaps getting orders from Master Control."

Presently the three undamaged robots turned and jetted away. Dig checked their direction with the signal from the satellite camp.

"They're going back to the spaceship," he said to himself.

Curiously he watched the damaged robot. It remained standing for several minutes, then it, too, jetted away. Dig checked its direction and, with a shock, realized that the robot was going toward the camp.

"Why the camp?" Dig asked himself. "Or is this some kind of trap to catch me?"

The three other robots, Dig saw, were already a long way off. He puzzled over their behavior for a moment, then decided to stay close to the damaged robot.

"I'm going to the camp anyway," Dig said to himself. "Might be a good idea to see what this one's up to..."

Not once during the journey did the robot glance back or make an effort to hide his trail. When the huts of the camp appeared in the distance, the robot veered more to his right, pointing toward the range of stubby mountains of bare rocks.

Farther to the right of the mountains was a flat plain

covered with a number of snow mounds. The robot walked straight toward one of the snow hills.

Dig crouched and hurried after him. Hiding behind one of the rocks, Dig lost sight of the robot for a moment. When he looked again he was nowhere visible.

With growing amazement, Dig let his crystal eyes sweep over the mounds of snow, the flat empty plain, the range of weird mountains of bare rock. The robot had vanished.

“Where did he go?” Dig looked up to see if the robot had jetted off the satellite. There was no sign of the robot among the endless grinding masses of ice.

Dig left his hiding place and advanced slowly toward the hill of snow. He saw that the robot’s footprints came to a stop at the base of the hill. Unable to believe his eyes, Dig stared at the shape of the hill.

He noticed, for the first time, that it was long, egg-shaped and unlike the other round mounds. There was something strangely familiar about the shape...

He looked about him carefully. There was no one in sight and he risked a quick dash to the base of the mound.

Something familiar... the thought persisted, nagged at his memory. He began to scrape the snow away, digging deeper and deeper. A few feet down, his fingers touched something hard... not rock... not ice...

He brushed the snow away and stared in amazement.  
Beneath the snow was the metal hull of a spaceship!

## 17 The Trap

WITH great daring, someone had brought the spaceship through the ice pack of Saturn's ring and hidden it on the satellite, close to the expedition's base camp.

Grudgingly, Dig had to admit his admiration for the skill and courage of the pilot. A robot could do it, the boy thought, for he was not aware of fear, as a human being would be.

Carefully, Dig scooped the snow back into the hole he had made. He smoothed the surface out with a few short blasts of compressed air. The frozen air crystals settled down quickly and the boy turned and walked rapidly away.

Out of sight, he paused and called Ken over the special wavelength. There was no answer.

"He's out of the robot body," Dig guessed.

The camp was not far away, and, with long, leaping strides in the light gravity, he ran toward the cluster of huts. Within a few minutes the camp loomed over the horizon.

Taking no chances, Dig slipped around to the rear of the buildings. He found the control hut and peered in through the viewport. Jim and Ken were there, and, in the reclining chair, lay his own body.

He went to the airlock and slipped inside.

"Jim! Ken!" he said immediately.

"Dig!" The two Barry boys jumped up with a glad cry as they recognized his voice.

"Where's the other robot body?" Dig asked, glancing about the room quickly.

"In the storage hut."

"Get back into it."

"But Dig... what happened? Are they coming here?"

"No, I don't think so. Strap into the chair while I tell you what I found."

Ken sat himself down and began to place the metal

bands around his wrists and ankles. While he was doing this, Dig told his two friends about his fight with the robot and about the hidden spaceship.

“What’s the rush?” Jim asked. “Where are you going?”

“To the spaceship, of course.”

Jim mopped his brow, then brushed the hair back from his eyes. He was frowning and worried.

“Why did that robot head straight for the ship?” he asked suspiciously.

“For one thing,” Dig answered slowly, “it may have been to have the crystal of his eye repaired...”

“You seem to think he had another reason.”

“Aye, to lead me to the ship.”

“Then it’s a trap!” Jim cried. “And you want to walk into it.”

“Aye,” Dig said, his round robot eyes fixed on his friend. “I want to walk right into it.”

“And have them destroy you?”

“No, I want to take advantage of the trap. Catch them by surprise and try to slip out of it.”

“You’re spacegoofy, Dig!”

Ken placed the electrodes on his head. He had been listening and saying nothing. Now he spoke up.

“Jim, Dad and Professor Norwyn are not on board the *Beagle* and they’re not here. Can you guess where they might be held as prisoners?”

“This spaceship?”

“Very likely.”

“What about the *Starover*?” Jim asked. “They could be held there...”

“The robots took them away from the *Beagle* on the spacesled,” Ken reminded his older brother. “Would they have used the spacesled to go just a few yards across to the *Starover*?”

Ken did not wait for his brother to answer. He lay



back in the chair and closed his eyes. In an instant he lay still. The golden body of the robot came lumbering out of the storage hut.

“I’m ready,” the robot said. Its voice was Ken’s.

“But what if you don’t slip through the trap?” Jim said. He looked at the two robots, frowning. “What then?”

“We’ll be no worse off than we are now,” Dig told him. “We can’t leave this camp... we can’t use the radio communications to call for help. We’re stuck here and could remain for years.”

“What do you want me to do?”

“Wait and watch over our bodies, If you don’t hear from us...” Dig hesitated. Then pointing to the extra tank of oxygen he had carried with him all through the chase, said, “There’s oxygen there. Enough to take you to the spaceship and back several times... Do what you think best.”

Jim nodded solemnly but said nothing. He watched the robot figures enter the airlock and shut the hatch. The light flashed on and Jim turned away and walked to the viewport.

Outside, it was still and lonely. The surface was covered with the fine, powdery snow formed by the freezing of methane gas. He saw the two robots come from around the corner of the hut and strike across the white field toward the near horizon.

In a few minutes they were gone over the curve of the satellite’s horizon and he was alone. Now he could do nothing but wait... and worry. If only he could hear their voices, the waiting and the loneliness would be easier to bear.

But with the amplifier gone, the communications system was useless. There was no way for him to hear except...

Jim thought of the radicom in his spacesuit. Suppose he connected the power pack of Dig’s spacesuit to Ken’s and to his own. By altering the circuits a little to handle the voltage the range would increase three times... four

times over!

He was not the kind of boy who could sit and wait patiently. He had to be doing things. He jumped to his spacehelmet and began to rip out the earphones and microphone...

Raising their heads over the rocks just high enough to see clearly, Dig and Ken studied the snow-covered spaceship.

“A good job,” Ken said. “It looks like a hill of snow. Maybe a little narrower and longer than the others. And flatter,”

“Whoever hid it knew what he was doing.” Dig moved his finger slowly, tracing the outline of the spaceship beneath the snow. “It’s higher and thicker at that end,” he said. “Probably the stern. She’s on her side and the tail fins would stick up.”

“The other end comes down in a sharp slope. The nosecone.”

“Aye.” Dig let his eyes move over the mound slowly, “The robot went in about there, near the middle. That would be the airlock...”

“You said there are three or four feet of snow covering it?”

“At the base,” Dig replied. “Should be less than that on top.”

“Suppose we scrape some of it away, just enough to locate a viewport?”

“Good idea,” Dig said. “I’ll go first. You wait a few minutes and if nothing happens—follow.”

“Aye, aye.”

Dig glanced to left and right quickly, then ran forward swiftly. As he came close to the hill, he jumped and released a short blast from his back airjets.

He judged the distance perfectly, sailing through space in a graceful curve to land on top of the mound. Ken remained out of sight for a short while, then followed Dig’s maneuver to join him on the hill.

Together the two boys moved forward cautiously until they judged a viewport would be under them. Then they began to scoop away the snow.

The layer of snow was thinner than they had expected. Their powerful metal fingers ripped away only twelve inches of snow before they uncovered the glassteel window of a viewport.

Pressing their eyes to the small opening they had made, the two boys peered down into the cabin. Almost directly below, they saw a laboratory table, very much like a surgeon's operating table, but larger.

A robot lay on the table. Bending over him, the two boys recognized the gnome-like figure of Professor Norwyn.

Using some kind of instrument, the man was picking splintered pieces of crystal from the robot's eye.

"The robot I followed," Dig said softly over the special wave length. "The Professor is putting in a new lens."

"So far, your guesses have proved right. The robot came here to have his eye fixed. Professor Norwyn is here... and Dad might be, too."

The cabin below was clearly a laboratory. Mechanical tools—lathes, moulds, smelting crucibles—filled one side of the room. A huge and complicated system of electronic controls stood against the opposite bulkhead.

"Is the Professor being *forced* to repair the robot—or is he working with them?" Ken asked, watching the scene below him suspiciously.

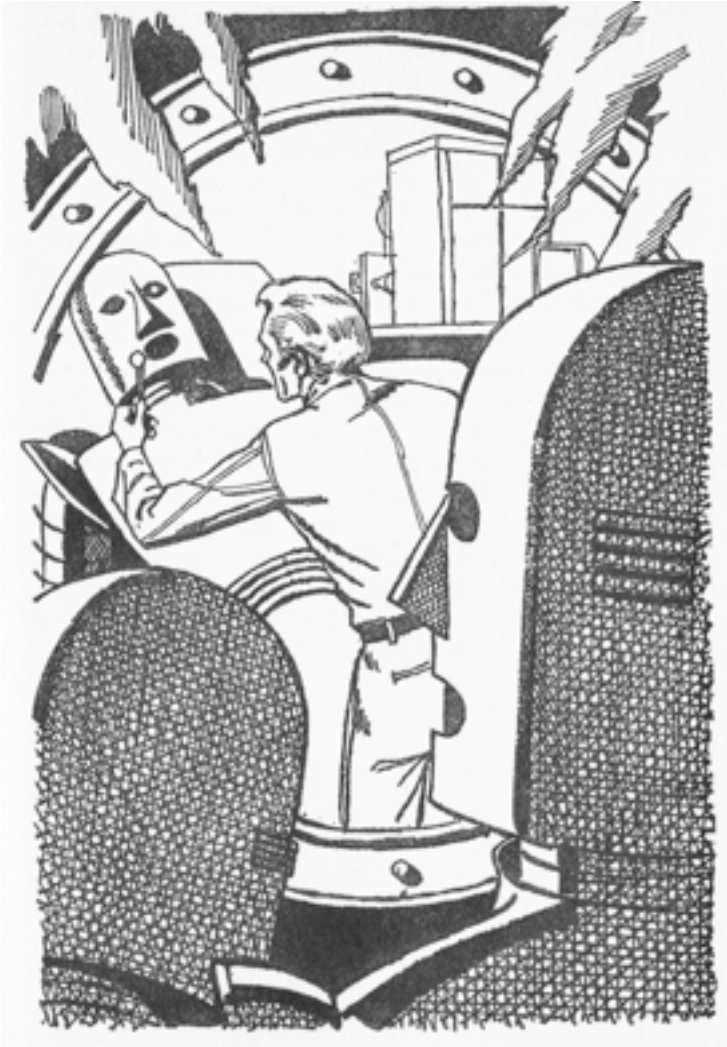
"Look toward the door."

A robot stood guard inside the room, his back against the door, his round, staring eyes fixed on the man.

"A guard..."

"Looks like it," Dig agreed.

They watched the Professor place a new lens into the robot's eye socket, then weld it with a long, thin torch. Finished, the man stepped back from the table and the robot sat up.



They stood talking for a few minutes, then one of the robots opened the door and Professor Norwyn walked out. The second robot followed, shutting the door behind him.

“Cover up the opening,” Dig said.

They replaced the snow, and moved cautiously to the center of the spaceship. Dig motioned for Ken to lie down.

“Cover yourself with snow so you can’t be seen from below.”

“Aye, aye,” Ken said. “What do you expect will happen?”

“I think the repaired robot will come out.”

“A Space-Explorer hunch?” Ken chuckled over their special communication circuit.

“Call it that,” Dig replied. “And maybe because I feel the robot’s done his job and will go back to the *Beagle*.”

Five minutes later Dig was proven right. A slab of ice swung out from the side of the hill and the robot came through the opening. After recoating the edges of the doorway with snow he hurried away without a backward glance. The two boys watched as the robot circled around the range of rocky mountains, staying on the flat snow field until he vanished below the horizon.

“You stay here and see if he returns.”

Dig slid down the side of the hill. Then he began to search about for the release lever of the airlock. When he found it a few minutes later, he called to Ken.

“I’ve got it. Come down.”

Ken joined his friend. “Are we going in?”

“Yes.” Dig pulled the lever and the slab of ice swung out again. “Inside, quick!”

They jumped in and Dig shut the hatch.

“Now what?”

“We’ll have to fill the airlock first. If we go in, there will be a rush of air into this room. That might trigger some of the safety devices. As it is, someone may have noticed the airlock warning light on the control panel.”

They stood in the small metal room, waiting for the air to reach the same pressure as that inside the spaceship. Dig watched the needle rising, his hand on the lever.

“Now,” he said, and opened the inner hatch.

The passageway was empty.

“We’re in luck,” Ken said with relief. The doors to the

cabins along the passage were closed. “No one knows we’re here...”

“You think so?” Dig asked. “Getting in was easy... much too easy.” He moved lightly down the passageway toward the forward part of the ship.

“You think we’re in a trap?”

“Pretty sure of it.”

“Then what are we going to do? Why did we come in here?”

“Because we couldn’t stay in camp and do nothing. Now we’ll try to do what our secret enemy—or the robot mutineers—don’t expect us to do.”

“What?”

“What would be the first thing you’d do?”

Ken thought for a moment. “Look for my father and Professor Norwyn... save them....”

“I hope that’s what the robots expect us to do.” Dig pointed to the door of the control cabin a few feet ahead. “But we’re going to grab the controls of this ship. And the first thing we’ll do after that is send a call to the Space Guards!”

“All right,” Ken said softly. “I’m ready.”

Another few steps brought them to the control cabin. Dig took the handle and tried to open the door. It was locked. “Stand back.” Dig stepped back, then threw his shoulder against the door with all his might. The door did not budge.

“Stop!” a cold, mechanical voice said.

Dig and Ken looked around. A robot was standing in the open doorway of a nearby cabin. He held a round, black object in his hand.

“Yes, it is an electrical bolt bomb,” the robot said, noticing the two boys looking at it. “Do not try to resist. You know, I believe, what this can do to you.”

“We know,” Dig said.

Farther back in the passageway another door opened and a second robot stepped out. He, too, held an

electrical bomb in his hand.

“You have done exactly as we expected,” the robot said. “Since you are mad enough to believe yourself human beings, we thought you would try to seize this ship and call Space Guards for help.”

“We are human,” Ken said in a hopeless voice.

“Why didn’t Master Control burn out our circuits?” Dig began to argue. “Doesn’t that prove we are different from you robots?”

“It proves that you are robots and that your brains and circuits need to be repaired.”

Dig glanced at Ken. “Hopeless...”

“Now go down the passageway to that door,” the robot pointed. “You will wait there until Professor Norwyn is ready for you.”

“Ready for us?” asked Ken. “What for?”

“To take you apart and make the necessary repairs.” The robot pointed. “Go.”

The two boys turned and walked down the passageway. Behind them the robot followed holding the bolt bomb ready.





## 18 Robot's Choice

KEITH BARRY was watching the fierce flame inside the laboratory kiln melt the combination of metals he had placed inside. The intense heat cast a soft orange glow over his tired face. But so intent was he on his work that he paid no attention to the opening of the door.

“Go away,” he cried, annoyed, “I’m busy.”

“These robots shall stay with you, Dr. Barry.”

“More guards?” Keith Barry asked. “Are you still afraid I’ll run away? Well, I would—if there was some chance to do so. Now go away, please...”

“These robots are not your guardians, sir,” the robot said. “They are here for repairs.”

“Eh?” Keith Barry shut off the kiln and looked up. His keen eyes studied all three robots, then turned to the one holding the bolt bomb. “Repairs?”

“They think they are human beings.”

“Why did you bring them to me? Professor Norwyn is the robot expert.”

“Professor Norwyn is getting ready for them. Perhaps you can explain to them that they are not human. We do not wish to destroy them.”

“Of course,” Keith Barry nodded, a faint smile suddenly coming to his lips. “I’ll bet they think they’re Space Explorers...”

“That is so, Dr. Barry.”

“Well, I’m very, very happy to talk to them.”

“There will be a guard outside the door.”

“I’m sure I’m safe with these two.”

The robot stepped back and closed the door. The moment he was gone, the two boys turned their robot bodies to face Keith Barry.

Grinning, the scientist held out his hands.

“Jim’s in the *Beagle’s* hospital, so you must be Dig and Ken!”

“Aye, sir.” Dig shook his head.

Ken picked his father up and gave him a hug. “Gosh, Dad! Did you ever think I’d be big enough to pick you up?”

“How did you boys manage to get here? I’d think even finding this ship would be impossible.”

“They set a trap for us—and we fell for it.”

“You sound like Dig,” Keith Barry said. “But you can’t be. That boy doesn’t *fall* into traps easily...”

Dig laughed. “Well, we sort of mew it was a trap, sir. So we walked into it because that was the only way to get to you and Professor Norwyn...”

“I see,” Keith Barry said, his face becoming serious. “Now that you are here, it may be far from funny.”

“We mow, sir.” Then the boy went on to tell the scientist about the *Beagle* and the conditions in the satellite camp.

“You see, Dad,” Ken said, “it was a question of staying on as prisoners or taking a chance. We took the chance...”

“What are we going to do now?” his father asked.

“Seize the ship,” Dig said. “We must find some way...”

Keith Barry shook his head, frowning. “Let me see...” He stared at the wall silently for several minutes.

Patiently the two boys waited. Keith Barry glanced about the room.

“This is my laboratory. The robots brought my equipment and supplies of Methane-X here. They’ve forced me to go on with my experiments...”

“Forced you, Dad?”

“As long as I continued to work, they promised to take good care of the people on board the *Beagle*...”

“How could they use such a threat, sir?” Dig broke in. “You know these Sensitronic Robots live according to their Five Commandments—”

The scientist’s voice was deadly serious. “Dig, from what I’ve been able to learn, these robots are doing their own thinking and planning.”

Ken emitted a long, low whistle. “But Professor

Norwyn made them, Dad,” he said. “Can’t he do something to control them?”

“I’m afraid not. We don’t see much of each other—the robots keep us apart—but he did manage to tell me once that he suspects there’s something wrong with the sensitronic brains he designed for them. Or it may be, I suppose, that someone has convinced these robots that they must do what they are doing in order to save us from some danger.”

“But why have they brought you and all your equipment here?” Dig asked.

“They want me to prepare enough Metalex to make a robot. Professor Norwyn is to design and build the new robot—and to make repairs on the existing ones.”

“Where is the professor?” Dig asked.

“Right next to this laboratory. There’s another one for him just forward of this cabin. They are forcing him to work...”

“And beyond his laboratory, sir?” Dig interrupted.

“The control cabin.”

Before Dig could ask any more questions, there was a quick knock on the door. A robot put his head in.

“You will all come with me now,” he said. “Professor Norwyn is ready for you.”

As they went to the door, Dig leaned over the scientist.

“One more question, sir,” he whispered. “How many robots on this ship?”

“Three, I’m sure. The others are guarding the *Beagle*.”

Dig stepped aside politely to let Keith Barry pass through the door ahead of him. He fell another step behind as they walked along the passageway.

One robot stood guard in the forward section of the ship, near the door to the control cabin. Dig glanced over his shoulder quickly. As he expected, there was a robot far back at the stem of the ship. The third robot, leading them, was walking beside Ken.

Dig called over the special wavelength.

“Ken?”

“Aye?”

“Keep your eyes open. As soon as you get into the professor’s lab, see if there’s a door leading into the control cabin. Flash me if you spot one.”

“Aye, aye,” Ken answered.

The robot was first to reach Professor Norwyn’s door. He opened it and motioned to Ken to go ahead. Then he waited as Dr. Barry went in. Dig came last, holding back as much as he could without arousing suspicion.

“Ken?” Dig called.

“I see it, Dig. There’s a door. Leads to a cabin forward that must be the control room.”

“Crash through it as soon as I come in!”

“Aye! I’ll do that...”

Dig entered the laboratory. The robot started in after him.

Suddenly Dig pivoted on one leg and lashed out with his fist in a wild, desperate swing. The blow crashed into the robot’s chest and hurled the golden body backward into the passageway.

Dig leaped to the door, slammed it shut and locked it.

Ken, at the same instant, was charging across the laboratory. He smashed against the door leading to the control cabin. The door held solidly and the boy’s robot body bounded back with a clatter.

“The door was especially made to stand up against the strength of a robot,” said the sharp voice of Professor Norwyn. “In fact, it can hold against a dozen robots.”

“We’re not beaten yet,” Dig cried, looking about the room. “Professor, you have—”

“I have had enough of this nonsense!” Professor Norwyn roared. He glared at the two robots angrily. “Don’t play spaceheroes for me!”

“But, sir, we’re trying to save—”

“Don’t you dare ‘But, sir’ me!” The professor shook a long, bony finger at Dig. “We’re all in danger! Very great

danger. And I don't mean you and the men on the *Beagle!* We're in danger of destroying my greatest discovery... robots such as you and the Sensitronics... and what can be done with Metalex..."

"Professor, the boys are here to help us. Surely there's no use scolding them now." Keith Barry's gentle voice interrupted the old man. "Perhaps, instead of quarreling among ourselves, we try to find some way to get out of this situation."

Professor Norwyn nodded his massive head. His sharp eyes seemed to leap from Ken to Dig and back to Keith Barry.

"Very well," he said. "The robots want the boys to return to their human bodies. After that, I am supposed to disconnect the M-Robots so that they cannot be used again..."

"Disconnect?" Ken cried. "You mean destroy them!"

"And we'll be prisoners in the camp," Dig said. "There's food and oxygen but not enough air in the oxytanks to let us leave the huts..."

"How long are we to remain prisoners, Professor?" Keith Barry asked.

"I can't speak for them, as you know. You are to make the Metalex and I am to make a robot of it..."

"And after we do that? What will the robots do with us?"

"I believe they'll return us to Earth."

"Or keep us prisoners here for years," Dig said. "We don't know and we can't tell what the robots are planning to do."

"That's true," Keith Barry said.

"I have another plan," Dig said. "We can cut through the lock into the control cabin and take over this ship."

"Cut through specially hardened plasteel? With what?" Professor Norwyn asked scornfully.

"You have a welding torch, sir."

"I do not!"

"But Ken and I saw you using it. You welded the

robot's metal around the lens of his eye when you repaired him."

"Yes, I did but it's a very delicate instrument..."

"Where is it, sir? A welding torch can be used to cut metal."

"Yes, of course. I never thought of it that way..." The professor appeared startled.

"Please give it to me," Dig said. "Hurry..."

"Yes, yes," said the professor, looking about him. "Where is it... Oh, yes. I keep it with my other instruments in the storage room."

He started for a small door in one corner of the laboratory. Dig followed him.

"We have only a few moments, sir. Hurry. The robots may think of this, too. They can be in the control cabin before we..."

Sharply, Professor Norwyn turned on him. "I know how important this is! I don't need a boy to tell me." He threw open the door of the storage room and stepped inside. "And I don't need anyone to help me find my own tools!"

He slammed the door shut.

"He's a touchy old man," Keith Barry said kindly. "And worried about his robots. I'm afraid he can't believe that the intelligent things he has created have really turned against him."

"Have they, sir?"

"What do you mean?" Barry asked, fixing his eyes on Dig's crystal lenses.

Dig glanced quickly at the storeroom door. It was still closed. He turned to the scientist.

"Professor Norwyn said that the robots wanted me to return to my human body. I believe you heard him?"

"I did."

"But I argued with a robot who tried to kill me," Dig said speaking hurriedly and watching the door of the storeroom. "He was positive that I had no human body—that I was a robot with a damaged brain."

“I think I understand,” the scientist said slowly, his face hardening. “If that robot knew you had a human body, he would never have raised his hand against you.”

“Exactly, sir! I would be a human being. But Professor Norwyn said the robots ordered me to return to my body...”

“It doesn’t make sense,” Ken said.

“It does make sense, son.” Keith Barry looked at Dig. “What’s Professor Norwyn doing in there now?”

“I’ll see.” Ken strode to the door and pulled on the handle. The door was locked. He rapped his metal knuckles on the door. “Professor Norwyn! Come out!”

The door opened unexpectedly and the old professor came into the laboratory. At the same time the control cabin door opened. A robot came in. In his hand he held a bolt bomb.

Professor Norwyn pointed to Dig and Ken.

“Get rid of them!” he said.

Without a second’s hesitation, the robot hurled the bolt bomb at the two boys.

As the robot raised his hand, Keith Barry realized the danger to Dig and Ken. He lunged forward with all his might and sailed across the room. His outstretched hands caught the bolt bomb in mid-air.

“Let it go, you fool!” Norwyn shouted. “You’ll be killed!”

The robot moved the moment he saw Barry reach for the bomb. He was a golden blur, so swiftly did he move toward the scientist.

In an instant he caught the man and tore the bomb from his hands. Then he flung the scientist to one side and hugged the bomb close to his own body.

In frozen horror they saw sharp tongues of blue flame flash and hiss and crackle over the robot’s body. It glowed a deep red for a moment, then the body went limp. The flashes of lightning died away.

Slowly the still body of the robot floated downward to the metal deck.





## 19 Revenge!

IN SHOCKED silence, they stared at the golden body of the robot. It rested lightly on the metal deck. The face showed no expression and the eyes remained round, wide-staring crystals. And yet, there was something sad and human about it.

Small, whimpering sounds replaced the heavy stillness of the room. Professor Norwyn was sobbing. Then, with a heartrending moan, the old man shuffled slowly to stand over the robot's body.

"He's dead," the Professor said, shaking his head as though he could not believe it. "Dead... I cannot help him now. I can't repair the poor burned-out brain... I cannot give him back his memories."

Dig and Ken watched, moved by the sorrow of the old man.

"He gave his life to save a human being, sir," Keith Barry said kindly. He came up to his old teacher and laid a gentle hand on the man's shoulder. "You designed him well and he was true to his Five Commandments."

Norwyn shook off the friendly hand. "Yes, I designed him well," he said. "I made him and I loved him like a son." He bent down and touched the metal body. Softly he said, "He knew he would die—he knew and still he did it."

The old man shook his head sadly, saying nothing. Dig kept his eyes on him, but his ears picked up the faint sound of footsteps outside in the passageway.

"Ken," he called over the special radio wavelength. "Get to the control cabin. Make sure the outer door is locked."

"Aye," Ken replied, moving away quietly. "I heard it, too."

He reached the control cabin just as the door from the passageway began to open. Swiftly he hurled his full weight against it and slammed it shut. Then he pressed in the lock.

“Got here just in time, Dig. We’re safe and we’ve got the ship.”

“Look around. Anything unusual about the controls?”

There was a moment’s pause, then Ken called, “Nothing unusual here. Standard controls.”

“I thought there might be additional electronic equipment for communicating with the robots.”

“No, Master Control wouldn’t be here.”

“It must be in the storeroom. I’ll have a look.”

Professor Norwyn glanced up as Dig stepped to the door of the small room and looked inside.

“Yes,” Norwyn said quietly. “That’s where I have my robot control equipment. I told my robots to come through the control cabin to help me.”

A series of powerful generators stood on one side of the room. Dig flashed a quick look at them, then turned his attention to the banks of amplifiers, transmitters and the complicated instrument panel. On shelves lining the walls were boxes of electronic supplies.

He came back into the laboratory. “When you left camp to go on your long walks,” Dig said, “this is where you came.”

The Professor shrugged his frail shoulders. “Yes. This is my spaceship.”

“And you were giving orders to the robots all the time?” Keith Barry asked, bitterly. “Why did you want to destroy my expedition? Why, Professor Norwyn? I can’t understand it.”

The old teacher laughed, shaking his large head from side to side so that it wobbled on his scrawny neck.

“*You* can’t understand it! Of all people, *you* can’t understand it!” He seemed to find this funny for some strange reason and he laughed. But it was a cold, unhappy laugh.

“Why should I understand it?”

“You made a fool of me even when you were a mere

student—you with your cheap, dirty newspaper tricks!”

“Believe me, sir, I had nothing to do with the newspapers and the way they wrote up that story I Nothing, sir! All my life I have admired and respected you—”

“You expect me to believe that?” Professor Norwyn asked with a sneer. “After graduation, you went on to become a famous scientist. But what about me? I, who taught you and hundreds of others? I was forgotten! There was no fame for me... no honor... forgotten. Still, I continued to do my work... for fifty years I have worked on my robots and the Sensitronic brain. I started before you were born, Keith Barry.”

A tear rolled down the thin, leathery cheek of the old man. He looked down at the robot’s body.

“And all my work,” he sighed. “Here it lies—dead!”

“There are other robots, sir,” Ken said, feeling sorry for the man. “Sensitronic Robots outside and... and us, the Man-Robots.”

Norwyn shook his head. “I am speaking of my work, all my work. My plans for the future. They’re dead.” He paused, then added, “Dead like this poor robot of mine.”

In the passageway outside the door, a robot rapped sharply with his hard metal knuckles. The old man ignored the sound. He was listening to his own inner thoughts, buried deep within his mind.

“I worked hard... so very, very hard,” he said wearily. “A satellite station to orbit close to the Sun... that’s what I was preparing. My Sensitronic Robots would be on it. They would study the surface of the Sun and report what they learned to me... to me...”

He shook his head. A smile came over his face. In the store room a signal buzzed on the Master Control as the robot tried to reach him. Norwyn paid no attention to it.

“Then I found a way to make my Man-Robots. Ah! What beauties you are!” he cried, looking at Ken and Dig. “I could go to my Sun satellite. I would be the first man to see the surface of the Sun from nearby.”

“You can still do it, Professor,” Keith Barry said.

The old man did not seem to hear him. "Then you came to me, Keith. You, with your great discovery—Metalex. Who would need my robots to go to the Sun? With a Metalex spaceship, anyone could do it. Anyone at all! So you destroyed my work—fifty years of it—even before it was finished."

Professor Norwyn raised his head and looked at Barry with fierce, angry eyes.

"And you had the nerve to ask me to help you! You and the World Council! Then I knew what I'd have to do! I agreed to come so that I could steal the Metalex—just like you were stealing the honors I would have won. I wanted the Metalex for myself."

The old man glared at his former student, shaking a gaunt finger at him.

"Do you now what I can do with Metalex?"

"Yes, I believe I do."

"Robots made with Metalex! Man-Robots who could actually land on the Sun and walk into the nuclear soup of which it is made." Suddenly the man began to shout and wave his arms about wildly. "Think of it! I would be using the Man-Robot. I! I! I! The first man to land on the Sun. My name would join that of the greatest scientists of the ages: Galileo... Copernicus... Newton... Einstein! Yes, and Norwyn!"

The long speech exhausted him. Norwyn turned his back on Keith Barry. His shoulders sagged.

"For that," he said, "I lied to you... I betrayed the World Council. I even tried to kill..."

"It's all over now, Professor. Perhaps we can straighten everything out and you can go on with your work—"

"Why? So that my new discoveries can be stolen?"

A wild light suddenly leaped into the old man's eyes.

"I would do it all over again," he cried. "And I wouldn't fail! This time I would kill—"

He stiffened unexpectedly, stood motionless, then Bung himself into the storeroom. The startling action caught everyone by surprise. But in an instant, Dig and

Ken charged after him.

Professor Norwyn met them at the door.

“Stop where you are!” he screamed. “Or I’ll destroy you!”

He held a bolt bomb in his hand, ready to throw it at the two boys.

Dig and Ken retreated warily, watching the old man closely.

“I’m ready to kill anyone who gets in my way!”

“He’s mad,” Ken said in a quavering voice. “He’s dangerous...”

“I don’t think the professor is mad,” Keith Barry said calmly. “He’s been working under a terrible strain... fifty years of it. He’s sick... a breakdown, but he can recover...”

“What shall we do in the meanwhile, Dad? His robots hold a shipload of prisoners on the *Beagle*—and us, too.”

“Put down the bomb, Professor,” Keith Barry said.

“No, Keith. Take another step and I’ll electrocute these Space Explorers...”

“Stand back, Dad,” Ken said. “Dig and I can take care of this...”

“You two will never take care of anything anymore,” Norwyn laughed. “I’m setting this bomb to the full charge it holds. You won’t be knocked unconscious this time! You’ll be burned completely!”

“Don’t dare do it, Professor!” Keith Barry cried angrily. “Put away the bomb and I’ll make all the Metalex you want.”

“You’ll make it for me anyway.”

“If you throw that bomb, I’ll never make so much as an ounce. Never! Not for your

“Beg, Keith Barry, beg,” cried the old man. “I like to hear you beg.”

“Very well, Professor. I’ll beg. Don’t harm these boys...” the scientist pleaded. “Think, sir. You are hurting yourself as well as everyone else...”



Professor Norwyn laughed wildly. He raised his hand and held the bomb over his head for a brief moment. Then, a grim expression on his face, he hurled it at the motionless bodies of the two robots. They did not dodge or try to escape.

The bomb struck Ken's robot on the chest. It seemed to stick to the metal for an instant. Then it exploded into a wildly raging flash that leaped from the body of one

robot to the other. A bluish flame enveloped both robots, crackling, hissing, sparking furiously.

Suddenly it stopped.

One after another, the two robots toppled over, floated down to the deck slowly, and then lay still.

Keith Barry watched in silent anguish.

“You... you’ve killed them,” he said in a low, breaking voice.

Professor Norwyn was very still. He stared at his former student and saw the grief in the younger man’s face.

Finally he whispered, “I’m sorry. I had to do it...”

Keith Barry dropped to his knees beside the still bodies of the two robots. Gently he let his hand touch the metal bodies.

“I will not make you any Metalex,” he said. “Not a drop.”

Anger slowly rose in the old man. “I will force you,” he warned.

“What can you do after this?” Keith Barry pointed to the robots.

“There is a ship full of people,” Norwyn said.

He ran into the storeroom and opened a drawer. His hand dipped in swiftly and came up with a stunray pistol.

“Don’t try to stop me, Keith,” he said, aiming the pistol at the scientist.

Keith Barry did not look at him.

The Professor flipped several switches quickly, then spoke into the microphone.

“This is Master Control to all Sensitronics on board the Laboratory Ship *Beagle* and on the Explorer Ship *Starover*. I have new, urgent orders for you.”

A voice came over the loudspeaker. “We are listening, sir.”

“These are your orders. If I do not call you in five

minutes, destroy the power supplies of both spaceships.”

“That will be done.”

“Destroy the communications systems of both spaceships.”

“That will be done.”

“Hide both spaceships deep in Saturn’s rings. Then all robots take the spacesled and return here.”

“That will be done, sir.”

Norwyn shut off the instrument panel. He turned to Keith Barry confidently.

“You have five minutes to make up your mind.”

“You are sending a shipload of human beings to certain death, Professor.”

“No, *you* are. Agree to make Metalex for me—and I will cancel my orders.”

Keith Barry looked at the old man and knew he had no choice but to accept defeat.



## 20 To Walk on the Sun

WHILE Keith Barry was pleading with the professor not to throw the bomb at the two boys, Dig and Ken held their robot bodies perfectly still.

But over their special communication system, Ken suggested they try rushing the old man.

“One of us will surely get him.”

“No,” Dig replied. He was watching every gesture the old man made. “The chances are we’ll both be knocked out.”

“He’s mad, Dig. And dangerous...”

“I know. He’s going to throw that bomb very soon no matter what your father says.”

“We’ve got to go after him.”

“No,” Dig repeated, thinking quickly. “We’ll hurt him...”

“It’s that—or he’ll destroy all of us.”

“He’ll recover his senses. Your father knows him better than we do.”

“Maybe he’ll get well again. But not soon enough to do us any good. He’ll throw that bomb, Dig!”

“I know. And we won’t be here when he does it.”

“What do you mean?”

Dig had not taken his eyes off the professor for a second. He saw the muscles in the old man’s arm become suddenly tense. At the same time, his eyes shifted from Keith Barry to the two boys. Dig sensed that Norwyn was about to throw the bomb. He acted instantly.

“Get back to your body! Now! Quick!”

A startled Jim saw his spacemates sit up in the chairs.

“Hey! What happened out there...”

He watched open-mouthed as Dig and Ken tore the electrodes from their heads, then the metal bands from their ankles and wrists.

“Out of the chair, Ken!” Dig leaped away.

“What—” Jim started to ask.

Flashes of electrical discharge sparked from the electrodes. Small lightning arcs jumped between the gaps, sizzled through the air and then suddenly died away.

Dig wiped the sweat from his freckled face and heaved a sigh of relief.

“What... what was that?” asked Jim.

“The Professor just tossed an electric bolt bomb at us,” Ken said weakly. “I’ve got to sit down.” He started to lower himself into the reclining chair, then leaped away.

“It’s all right now,” Dig grinned. “You won’t get shocked.”

“Suppose you guys explain something to me?” Jim brushed his hair back from his eyes, using his wide-spread fingers as a comb. “What has the professor to do with this?”

“He’s our secret enemy,” Ken said.

“You found him? And Dad?”

“We found them.”

“All right, tell me the rest.”

“Some other time, Jim.” Dig sat himself in the reclining chair and began to put on the bands on his wrists and ankles.

“Where are you going now?”

“Back to the professor’s ship—I hope.” Dig turned to Ken. “The charge from that bomb was divided between us,” he said, “and some of it must have been grounded by the ship’s metal deck. The robots’ electrical circuits may have come through it all right.”

“But what—” Jim began.

Dig cut him off impatiently. “Later,” he said. “We have a few things to do. Come on, Ken!”

“Right.”

The two boys fixed the electrodes on their heads and rested back in the chairs.

“Whatever you do, Ken, don’t move the robot. Stay put until we can give the professor a real surprise.”

“Aye.”

Jim was left gaping and angry as the two boys became motionless in the chairs. They returned to their robot bodies in time to hear Professor Norwyn’s orders to his robots. Dig turned his head slightly and saw defeat plainly on the face of Dr. Barry.

“You win, Professor Norwyn. I can’t let my crew and staff members die out there in the rings of Saturn.”

“All right, Ken. Take the control cabin and raise this ship.”

“Aye, aye, sir,” Ken replied over their special radio.

The two robots rose from the deck of the ship. While Professor Norwyn stared with sudden fear and amazement, Keith Barry jumped to hug the two boys.

“You’re not hurt?” he cried, his voice choking back a sob. “Dig? Ken?”

“We’re all right, Dad. We went back to our bodies when he threw the bomb.”

Ken went to the control cabin and pushed himself into the pilot’s seat. He worked swiftly over the instrument panel. Within a few seconds, he activated the atomic pile. Another few moments and the soft, steady throbbing of the engines could be heard vibrating through the spaceship.

Dig turned his head toward the control cabin. “Shake her loose from the ice, Ken.”

“Aye, aye, sir.”

He released a short, low-powered blast from the rockets. There was a loud crackling noise beneath the hull of the ship. The ice and snow fell away. The ship rose lightly above the satellite, drifting parallel to the surface.

The snow fell away from the viewport and Ken could look ahead.

“Heading for the mountain range,” he called out.

“Steering rockets. Point her nose up.”

“Aye, aye, sir.”

Ken blasted the nose rockets, just hard enough to swing the ship over. The stream of ice in Saturn’s ring now lay ahead.

“Keep her hanging as she is,” Dig called out.

“Aye, aye, sir!”

Keith Barry came to the old man and placed his arm around his shoulder. This time the professor did not shake him off. Instead, he raised his head and looked into his former student’s eyes.

“You understand why I did—what I did, Keith? I went crazy when I thought I’d lose all that I’ve worked for.”

“I understand, sir. We will not abandon your robots. Once we find the *Beagle* and *Starover* and repair them, we’ll come back and pick them up. You’ll also have this ship back.”

“You... you’re willing to do all this? After I tried to destroy your expedition? Kill your boys? Steal your Metalex?”

“Yes, sir,” the scientist said. “These robots are much too valuable to be thrown away.” He paused, then added, “And their inventor is much too great a scientist not to be truly honored for his work.”

Norwyn could hardly believe his ears. He blinked and stared earnestly into Keith Barry’s eyes.

“Why are you doing this?”

“Because when I was a young student, sir, I had a great teacher. Everything I’ve ever accomplished was in honor of his teaching.”

Professor Norwyn looked down at the desk top before him.

“You see, sir, a good teacher wants his students to be better than he is. The more they accomplish, the more they probe how good a teacher he is. I had a very good one.”

He patted the old man on the shoulder and turned away. Norwyn rose and walked briskly toward the storeroom. Dig, alertly, blocked the way.

“Step aside, son,” Professor Norwyn snapped curtly. “I have work to do.”

Dig hesitated, then moved away to let the professor pass into the room.

“I have had a chance to learn something from one of my old students,” the man said as he flipped over several switches.

Keith Barry came and joined Dig in the doorway. There was a smile on his face. He glanced up and met the round, crystal eyes of the boy’s robot.

There was no need for words to express their feeling.

Professor Norwyn, meanwhile was talking into the microphone.

“This is Master Control to all Sensitronics. My former orders are canceled. Return the two spaceships to their positions.”

“That will be done,” a robot’s mechanical voice replied.

“Repair any damage that has been done. The danger to all human beings is over. From now on, give command of the ship to the human crew and obey their orders.”

“That will be done, sir.”

Professor Norwyn switched off. “I can do no more,” he said to Keith Barry.

“Yes, you can, sir. You can go on with your work!”

“My work?”

“Of course! I’m going to make Metalex and you’re going to make Man-Robots out of that material.”

A light came into the old man’s eyes. His gray, tired face suddenly beamed.

“And you and I—we’ll be the first to walk on the surface of the Sun!”

“It’s a date, sir!” Keith Barry laughed. A weight seemed to have slipped off his shoulders. Suddenly he felt gay and lighthearted. He turned and called to Ken. “Can you drop this ship at the camp?”

“Aye, aye, sir! We’re almost over it now.”

“Do it, my boy, do it!”

A signal flashed on the instrument panel. Ken flipped on the switch beneath the light. The hum of a radicom came through the loudspeaker.

“This is Captain Gus Nielsen, Space Laboratory Ship *Beagle* calling Satellite Camp. Can you hear me? Come in, please.”

“Satellite Camp to *Beagle*. James Barry, Space Explorer Corps, at Satellite Camp.”

“Are the others with you?”

“Well, Ken and Dig are, sort of...”

“Dr. Barry? Professor Norwyn? Are they all right?”

“I don’t know. But about Professor Norwyn... well, he’s the—”

Keith Barry cut in quickly. “He’s all right, too. Everything is under control, Captain Nielsen.”

“Glad to hear that, sir. Strange thing happened... the robots came to me and—”

“I know, Captain,” Keith Barry said, chuckling. “That was due to Professor Norwyn’s help. Now, I’d like to speak to Greg Bayard and Maxie Styne.”

“I’ll have you switched over, sir.”

A moment later, Greg’s voice came over the speaker. “We heard your conversation with the captain, Dr. Barry.”

“Greg, I have some work for you and Maxie.”

“Aye, sir?”

“We’re setting up a permanent camp here. I want you and Maxie to take charge of the mining operations.”

“A pleasure t’do that, sir,” said Maxie.

“You will work with the Sensitronic Robots and I expect to get plenty of Methane-X.”

“You’ll get it, sir.”

“Meet us at the camp and bring the robots with you.”

“Aye, aye, sir.”

“And Jim?”

“Aye, Dad?”

“Where did you get the radicom?”

“Rigged it up from the spacesuits.”

Dig and Ken looked at each other. “Why didn’t you think of that?” They both said it at the same time, and laughed.

“By the way, weren’t you supposed to land this ship?” Keith Barry asked.

“Aye, aye, sir!”

Ken turned his attention to bringing the spaceship to touchdown. When the tail fins were firmly anchored to the ice, Dr. Barry and the professor put on their spacesuits. They were already in the airlock when Dig and Ken met with the Sensitronic Robots on board.

“You know now that we are human beings using robot bodies?” Dig asked.

One of the robots replied, “Professor Norwyn has told us.”

“We’re going to leave our robot bodies here and return to our human bodies in the spacehuts outside.”

“We understand perfectly.”

“Take care of the spaceship and of our robot bodies.”

“That will be done, sir.”

Dig and Ken stood themselves against the laboratory wall. The next instant they were back in their own bodies inside the control hut.

They were just taking off their electrodes when Keith Barry and Professor Norwyn came through the airlock.

“I can’t find words strong enough,” Barry said, “to tell you how proud I am of what you’ve done.”

“I can,” said the old professor. “I wish I could boast that I was your teacher...” He stopped in amazement as Ken and Dig left the chairs and faced him.

“What’s the matter, sir?” asked Ken.

“The matter?” The thin body of the old man began to shake with laughter. “What’s the matter, he asked!” The professor turned to Keith Barry. “Look at him! Look at your son!”

And he couldn’t say any more as he doubled over

laughing.

“What is it?” Ken cried, puzzled and annoyed.  
“What’s the joke?”

“Your face!” And Dig started to laugh.

Ken glared at the red-headed boy. Then a grin appeared on his face.

“Is it as funny as yours?”

“Mine?”

“You’ve got a big red nose painted on. And green spectacles around your eyes... and a blue mustache and—”

“But that’s what you have,” Dig cried. “Except that your nose is green.”

“Someone painted our faces while we lay in the chairs...”

“And that someone is—”

Both boys turned on Jim.

“You traitor!” They began to advance on him menacingly.

“Now, wait a minute,” Jim said, backing away. “I can explain everything... Don’t lose your tempers. I was sitting here all alone, worrying about you fellows. And I was bored. Then I found some beautiful paints in the storage hut... and gosh, fellows... you know how it is. But the real explanation is—”

What the real explanation was, no one knew. They were all too busy laughing to hear it.

**THE END.**