

# JOURNEY TO JUPITER

A DIG ALLEN SPACE EXPLORER ADVENTURE

By Joseph Greene

*Illustrated by* WALTER DEY



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# **Dig Allen— Journey to Jupiter**

By Joseph Greene

Book 3 In The Dig Allen  
Space Explorer Series

With Illustrations By Walter Dey

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*To my editors  
because books are seldom finished on time  
without their helpful persistence,  
their endless patience—  
and their  
sympathetic pestering.*



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## 1 The Mysterious Spaceship

A SENSE OF DANGER FILLED THE CONTROL CABIN OF the Explorer Ship *Starover*. The two boys who sat humped over rows of instruments said nothing, but each felt uneasy.

Tall, dark-haired Jim Barry stared through the glassteel viewport of the spaceship at the unknown asteroid. After a while he broke the silence.

"This is the last one, isn't it, Ken?" he asked.

His younger brother looked away from the radar screen which he had been watching closely.

"It is," he said. "When Dig sets up this radio beacon, we can go home."

A short distance from the spaceship, the asteroid Boated motionless in space, silent and mysterious. About a mile wide, the asteroid resembled a gigantic chunk of coal. From its surface rose the weird shapes of miniature mountains and jagged peaks.

"I'll breathe easier when this job's done," Jim said. "I get shivers just watching Dig crawl over that piece of spacerock!"

Ken left his seat and shuffled across the cabin, letting the magnetoes of his space boots click and scrape on the metal deck.

He was a strong, broad-shouldered boy with a handsome, rugged face. His blond hair was cut so short that it stood up on his head like the bristles of a stiff brush.

"I know what you mean," Ken said, looking over his brother's shoulder at the asteroid. "Where is he?"

"See that tall mountain?" Jim pointed to one of the peaks sticking up from the surface of the asteroid.

"Uhuh."

"He's almost at the tip there."

A tiny figure was climbing slowly over the rough ground. The yellow-colored spacesuit worn by Dig Allen stood out as a bright speck against the dark, craggy mountainside.

"I feel like holding my breath!" Ken said.

Meanwhile, on the asteroid, Dig Allen was moving cautiously over the treacherous ground. Because of the light gravity, a sudden careless step could send him floating off into space.

Steadily he inched toward the tip of the tall peak, groping for secure handholds in the rocks. At the top he rested for a few minutes, then reached into the tool kit hanging from his spacebelt.

With hammer and chisel he set to work cutting out a hole in the solid rock. When he had finished, Dig replaced his tools in the kit and brought out a red metal cylinder which he thrust firmly into the hole.

He paused for a moment, then pushed in a small pin sticking up from the cylinder. Slowly and cautiously he rose to his feet and looked about him.

Not far from the asteroid, the *Starover* hung motionless against the star-sprinkled blackness of space. Its thick, cigar-shaped body sparkled as the light from the Sun struck the metal hull and flashed on the viewports.

Inside the glassteel globe of his spacehelmet, Dig turned his freckled face and looked proudly at the sleek and powerful spaceship. On board, waiting to hear from him, were his two closest friends.

Dig switched on the radicom and spoke into the tiny microphone inside the helmet.

"Calling *Starover*! Dig calling *Starover*! Can you hear me, Jim?"

"Aye, aye!" came the reply.

"Radio beacon guide installed on the asteroid. Check the signal beam!"

There was a moment of silence, then the click of a switch, and Jim's voice came cheerily over the earphones.

“Signal checked! The guide beam is coming in loud, clear, and steady!”

Dig sighed with relief. “I’m glad this is over,” he said. “Stand by! I’m returning to the ship.”

“Hurry up!” Jim said. “What’s been keeping you, anyway? I want to go home!”

Dig laughed. “How far are we from asteroid Eros?”

Ken’s voice replied. “About an hour’s run.”

“I’m coming aboard as quick as I can!”

Dig kicked hard against the ground. The action hurled his body away from the asteroid. He floated in space feeling no motion, though he knew his body was turning slowly head over heels. The sharp, unwinking pinpoints of light from the distant stars wheeled past his eyes.

The usual queasy little twist came into the pit of his stomach as he felt himself fall endlessly through space. But it was a familiar feeling. Having lived almost all of his life on spaceships, Dig had even learned to enjoy the sensation of weightlessness.

He gave a sudden thrust of his arm as he floated. The movement made his body turn until he faced the *Starover*. Then he pressed a button on his spacebelt and a jet of compressed air shot out of the two oxytanks strapped to his back. He began to move toward the spaceship.

After a few seconds, he shut off the jets. He continued to approach the *Starover*, which loomed larger and larger before him, until it blotted out his view of space. Just as he reached the side of the ship, he raised his knees, twisted, and landed with his feet on the hull. The magnetoes gripped the steelite plates firmly.

He steadied himself, then shuffled toward the airlock. Before entering, Dig glanced away into the everlasting darkness of space.

Around him was emptiness without end. Millions of distant stars shone like lonely bits of light hung on a black curtain.

He went into the airlock and shut the outer hatch

behind him. While air was being pumped into the little room, Dig called over his radicom.

“What are you waiting for, Jim? Blast for home!”

“Aye, aye, sir!” Jim replied with a laugh.

Immediately the stern rocketubes exploded with power, hurling the *Starover* toward the home base of the Space Explorers on asteroid Eros.

When the warning light winked out, Dig left the airlock. He opened a storage closet nearby and put his spacesuit in with those of his two friends. Then he headed forward to join his spacemates in the control cabin of the ship.

Dig was a boy of medium height, slim in build, lithe and quick as a cat in his movements. Below his mop of bright red hair was a broad forehead and a slightly turned-up, impish nose covered with freckles. His face was tanned deeply by repeated exposure to the powerful sunlight of space.

“Not home yet?” he asked, grinning as he stepped into the cabin. “What kind of a spacepilot are you?”

“As good as you can find in the spaceways,” Jim growled in reply. There was a mischievous glint in his eyes as he glanced at the chronometer. “I’ve been doing your work for ten minutes already.”

“All right.” Dig laughed. “I’ll take over now.”

He slipped into the pilot seat and checked over the controls.

“I’ll stick around just in case you need help bringing this ship in for a landing,” Jim said.

“Do that,” Dig replied. Then he turned to Ken and said, “You’re quiet. Aren’t you glad to be heading back home?”

“I’ve been thinking,” the blond boy said slowly.

“Really?” Jim asked, pretending to be surprised. “Thinking!”

“Why did we set up the radio beacons on the unlisted asteroids?” Ken asked, ignoring his brother’s banter. “Why did we chart a route across the Asteroid Belt?”

"So spaceships can find their way to the other side," Jim replied.

"What spaceships?" Ken asked. "There are no colonies beyond the Asteroid Belt and no spaceship lanes through them."

"All right," Jim said. "You've got a good argument there. Why *did* Dad ask us to do this job?"

"I don't know," Ken admitted. "That's what I've been thinking about. I can't understand it."

"Perhaps Space Research is planning to start a colony somewhere beyond the Asteroid Belt," Dig said quietly.

Jim and Ken stared in surprise at the red-headed boy.

"What do you know about it?" Jim asked quickly.

"Only what I can guess," Dig replied. "When we were on Eros, there was a lot of hush-hush activity going on."

"That's right!"

"We didn't stay there long enough for me to find out anything. If you remember, Dr. Barry sent us off on this mission almost the day we arrived."

"Why do you think Dad was in such a hurry?" Ken asked.

"Well, we're going to know what the Space Research Bureau is planning soon enough. About forty minutes to Eros."

Some time later, the asteroid appeared as a tiny black pebble drifting in space. As the *Starover* came closer, the asteroid rapidly grew in size.

"Begin to brake," Jim said.

"A back-seat spacepilot," Dig chuckled. He snapped on the nose rocket switches and pulled back on the power lever.

Spurts of jet flame shot out of the spaceship's nose. The *Starover* was slowing down.

He opened the communicator switch.

"*Explorer Ship Starover* calling Eros Space Guard control! *Starover* to Eros control! Come in, please!"

Wavy lines scrambled across the screen of the videoscope, then began to clear. The face of a young Space Guard came into focus.

"Eros Space Guard control receiving *Starover*. Peter Mattila on duty."

"Request landing clearance, sir!" Dig announced.

"Identify yourselves!" The young space Guard said crisply.

"On board, members of the Space Explorer Corps," Dig replied. "Jim Barry, Ken Barry, Digby Allen."

Space Guard Mattila nodded. "Request granted. Landing vector is clear. No ships in vicinity. Use normal approach procedure. That is all!"

He flipped a switch on his instrument panel and the screen went blank.

"All strict business and no friendly chatter!" Jim said, disappointed. "And I wanted to hear some gossip."

"He's new on Eros," Dig remarked. "Sergeant Brool must have received a squad of Space Guards to help him."

"Just a bunch of awkward space rookies," Jim said.

Ken chuckled, glancing at his brother. "Well, old-timer, you'll have to take them in hand and teach them a few things."

Dig crouched over the instrument panel, giving all his attention to the mass of controls in front of him. He snapped the landing tape into the automatic controls, then released power to turn the ship toward the asteroid so that it would make its approach tail fins first.

Ken switched on the rear scanner and watched the surface rising upward on the screen.

"Two spaceships on Eros," the blond boy called out. "*Patrol Cruiser Galahad* is one of them. The other is the *Laboratory Ship Beagle*."

Dig smiled. "Eros is getting to be a busy spaceport. We'll be the third ship there."

Ken suddenly tensed as he studied the ground below them.



“Someone is coming out,” he said. “The airlock on Eros is opening!”

Dig switched on his screen and studied the scene. A round metal disk, level with the ground, was beginning to spin slowly. As it turned, it rose upward on a thick, corkscrew column.

A figure dressed in a red spacesuit came out from under the disk and walked clumsily away. A moment later, the man leaped upward. A jet shot out of the oxytanks on his back and propelled him swiftly toward the *Starover*.

“What’s he coming here for?” Jim asked, looking over Dig’s shoulder. “We’re going to land!”

Dig switched on the radarscope, then set it quickly at radicom range.

“*Starover* to red spacesuit! *Starover* to red spacesuit! Return to surface! Our controls are set for automatic landing! Space Guard control cleared this vector for landing! Return to surface!”

The man shut off the airjets. For a moment he seemed to hesitate, hanging in space. Then he twisted his body into a somersault. The jets shot out again. He began to move away from the *Starover*.

Astonished at the sudden maneuver, the three young Space Explorers stared at the screen of the rear scanner.

“He’s not going back to the asteroid!” Jim exclaimed.

“What in space is he doing?”

“Look toward the horizon!” Ken cried.

A small, powerful spaceyacht had suddenly appeared over the edge of the asteroid. Its airlock was open and the man in the red spacesuit jetted straight into it.

Then two strange voices came over the radicom.

“What happened?” asked one.

“I mistook them for you!” said the other—evidently the voice of the man in the red suit.

“Let’s get away from here!” said the first voice.

“Rip them open as you pass” was the reply.

Even as the airlock hatch on the yacht closed after admitting the stranger, her rockettubes were spurting jet flames. The ship turned and shot straight at the *Starover*!

“Look out!” Jim cried. “They're going to ram us.”

Dig was already working the controls, his hand Hying swiftly over the dials and levers. But he was a split second too late'

The spaceyacht was alongside. A few feet away, it swerved to avoid a direct collision. At the same time one of its tail fins ripped sharply into the side of the *Starover*.

There was a grinding crash! The ear-shattering screech of tearing metal filled the spaceship. The *Explorer Ship Starover* shuddered under the shock of the collision.

An instant later the spaceyacht had flashed by the viewport and was gone. Dig recognized the shrill hiss of escaping air.

A hole had been ripped in the side of the spaceship.

## 2 S. O. S.

THROUGH THE LONG, GAPING HOLE IN THE SIDE OF THE *Starover*, the vacuum of space greedily sucked the air out of the ship. The atmospheric pressure in the control cabin dropped suddenly.

The three young Space Explorers held on desperately. A powerful wind tore at them. The air rushed into the passageway and from there out into space through the hole in the side of the ship.

The swift movement of air lasted for only a fraction of a second before it set off automatic safety devices. Even as the three boys doubled over in pain, all hatches and doors inside the spaceship slammed shut. Instantly, the control cabin was sealed airtight.

The boys swayed weakly, held to the deck by their magnetic boots. The pumps were working, filling the cabin with new air.

Their faces pale, their bodies tortured by sharp stabs of pain as a result of the sudden change in air pressure, the three boys waited.

When the cabin was near normal again, Ken gasped out, "What... why... why did they do it?"

"To kill us!" Jim cried angrily.

Ken looked at his brother, partly dazed. "But why?"

The question was left unanswered. Dig bent over the control board and began to check the damage. He flipped a series of switches, testing the atmospheric pressure inside the safety compartments of the spaceship.

All but two of the lights showed green.

"What's the damage?" asked Ken.

"Vacuum in the passageway from the door of this cabin back to the airlock," Dig replied solemnly. "I guess that's the size of the hole ripped in our side."

"Well, we'd better get started fixing it up," Jim said.

"How?" asked Dig, turning to look at the boy.

"I'll get my spacesuit," Jim began, then stopped suddenly and stared at Dig. "The spacesuits!"

"Outside in the storage closet near the airlock," Dig said slowly. "We can't get to them."

"But we can't repair the hole in the ship without our spacesuits!" Jim cried.

"And we can't get to our spacesuits until that hole is repaired!"

"Trapped!" Jim exploded. "*If* I could get my hands—"

Ken interrupted. "Call Space Guards, Dig. They'll have to come out and get us."

Dig shook his head. "Our communications system has been knocked out by the crash."

He flipped the switch of the radarscope. The screen remained blank and no sound came from the loudspeaker, not even the crackle of static.

"That's fine!" Jim exclaimed angrily. "That's just dandy!"

"I've got more bad news," Dig said.

"Now what?"

In answer, Dig pulled back on the power lever. There was no response from the rocketubes.

"The wiring between here and the engine room is cut."

"We're spinning and out of control," Ken said, glancing at the viewport.

Outside, spacerocks, filmy dust clouds, and the cold lights of the distant stars were wheeling past. The spaceship was slowly tumbling, nose over stem, over and over. Its momentum was carrying it into the wastes of the Asteroid Belt.

"Spinning like a pinwheel," Jim said. "Just how bad a fix are we in?"

"Our chances are pretty slim," Dig replied. He was not the kind of boy who fooled himself or his friends. He looked at Jim and Ken for a moment, then added, "We'll

drift around until someone finds us... or we run out of our emergency oxygen supply... or we crash against one of the larger asteroids.”

Jim pushed himself into the pilot seat and stared gloomily at the useless panel of instruments.

“That Space Guard...” he said, slowly. “Why did he say there were no ships near Eros? Why did he give us clearance to land?”

Dig shrugged. “No use trying to guess now.”

He opened a cabinet beneath the control board and brought out a small black ball. Within it was a tiny but powerful radio transmitter used to send out emergency calls for help.

“This is our only chance,” Dig said. He held the black ball up for his friends to see, then pushed in the starting pin. “Let’s hope the Space Guard station picks up our SOS signal.”

“And traces it to us in time,” Ken added quietly. “Before we run out of air—or crash!”

In the communications room inside asteroid Eros, rookie Space Guard Peter Mattila faced Sergeant Brool. The young man listened unhappily to the scathing remarks of his commanding officer.

Hawk-faced, his dark complexion flushed with anger, the sergeant was glaring at his assistant.

“When did you get their call? Are you sure of the time?”

“Aye, sir! Half an hour ago.”

“And they didn’t land?”

“No, sir! That’s why I called you. I can’t understand it.”

The veteran Guardsman began to pace the little room angrily.

“Did you try to contact them?”

“Aye, sir! There was no answer.”

“And you let half an hour pass before calling me!” The

sergeant stopped his pacing and whirled on the rookie. "Are you sure you weren't spacedreaming?"

The young Guardsman Hushed. "Aye, sir. I mean, I wasn't spacedreaming, sir." Beads of perspiration gathered on his forehead.

The sergeant resumed his pacing. Slowly his temper cooled.

"Those boys are my friends," he said, softly. "If anything happened to them..." He left the thought unfinished. Instead, he looked at the young Guardsman keenly. "Did you follow their landing on radar?"

"No, sir," Mattila replied. "I didn't think it was necessary."

"No calls from the boys... no answer to our calls! Have you tried to pick up a black ball signal?"

"No, sir."

"Do so at once! Scan the entire area for an EC signal!"

"Aye, aye, sir!"

The young Space Guard turned quickly to his control board and flipped on several switches. Electronic tubes glowed softly, casting a weird pink light over his tense face.

"There's something, sir. A weak signal... It's an EC signal for sure, sir!"

"Relay the direction figures to me on the *Galahad*!" Sergeant Brool snapped. "I'm going to find that ship!"

"Aye, aye, sir!" the young Guardsman replied, but Sergeant Brool was already through the door and hurrying down the corridor in long, loping strides.

Direction finders on the *Patrol Cruiser Galahad*, guided from asteroid Eros, soon located the drifting explorer ship. The *Starover* was turning over slowly, hopelessly out of control, when Sergeant Brool sighted it through his viewport.

The EC signal was being broadcast from the damaged ship, but no response came to the sergeant's frantic attempts to communicate with those on board.

Between the airlock and the forward control cabin the sergeant saw a great gash of torn metal, almost twenty feet long.

Worried, the veteran spaceman brought his ship close to the *Starover*. He shot across the magnetic grapples equipped with a swivel, linking the two ships together with a long steelite cable. Then he hurried into his spacesuit.

Taking emergency repair equipment, he made his way through the airlock and along the tow cable to the damaged spaceship.

He lost no time in examining the damage. At his feet, through the torn steelite plates, he saw the spaceship's main passageway exposed. Another few feet and the control cabin itself would have been slashed open to the cold vacuum of space. "The luck of space was riding with the boys," he said to himself. "If they're still alive!"

Adjusting the spray nozzle to the tank of plastiseal he had brought with him, the Guardsman set to work. He sprayed a thin stream of a gas-like chemical across the hole. In the cold of space, the gas quickly hardened into a thin metallic coating.

He continued to aim the nozzle spray from side to side, letting the fine mist settle like a blanket over the hole. The world of distant starlight, the nearby asteroid rocks, and the scattered debris of sand and pebbles wheeled eerily around him. Slowly a patch formed, covering the torn and twisted metal.

After several minutes, Sergeant Brool was satisfied with the results. Leaving the repair equipment fastened to a ringbolt in the hull of the ship, he hastened into the airlock.

The air pumps worked smoothly, the veteran Guardsman found. He waited impatiently as the atmospheric pressure built up. Then, as quickly as he could, he unlocked the inner hatch and cautiously stepped into the ship's main passageway.

Air pressure was increasing here, too, according to the atmometer inside his spacehelmet.

Waiting, he examined the damage. It was less severe than he had expected from the outside appearance of the hull. A switch box near the airlock was ripped from the bulkhead and was dangling by a few wires.

Examining it, the Guardsman saw that the safety fuses had been shattered in the crash, breaking connections between the controls in the forward cabin and the engine room.

By the time he had repaired the switch box, the needle in his spacehelmet indicated normal air pressure around him. He went to the cabin door and rapped on it sharply.

He slipped off his helmet in time to hear the answering knock from the other side.

"They're alive!" the Guardsman sighed in relief. He knocked on the door again, sharply. "Open up!" he shouted. "Open up!"

In a moment the door was opened. Three happy Space Explorers tumbled out of the control cabin and hugged the veteran spaceman.

"Sarge! You're the most beautiful sight in space!" Jim cried. "I'm so happy to see you, I could walk on the ceiling!"

And the next instant, the boy did just that. He kicked himself away from the metal deck, turned a somersault in the gravity-free air, and clicked his magnetoes to the metal overhead.

"We thought we were done for," Ken admitted, smiling gently as he looked into the Guardsman's face.

"Maybe *you* were," Jim boasted from overhead. "I knew we'd be saved!"

"Too bad you didn't let us know," said Dig grinning. "I was scared."

"Well, I'll confess I was, too." Jim laughed, pushing himself back to the metal deck.

A twinkle in his eyes, the Space Guard glared at the boys.

"Cut out this space gab and get inside the control



cabin,” he roared. “You!” he addressed Dig Allen. “Take your ship out of spin!”

“Aye, aye, sir!”

Dig pushed himself into the pilot seat and quickly set the energy dials. A few quick bursts of rocket fire stopped the spin. Within seconds the *Starover* was floating level with the squat patrol cruiser a short distance away.

“Now, by the rings of Saturn, tell me how you boys managed to get into this mess.”

“Why, sir, it was easy!” Jim replied, with a smile. His spirits were again high and the mischievous light sparkled in his eyes. “We had help.”

“You had what?” The sergeant looked astonished.

“We were coming in for a landing, sir,” Ken said. “Guardsmen Mattila cleared us. As we started to land, the airlock on Eros opened. A man in a red spacesuit came out and jetted toward us.”

Sergeant Brool frowned thoughtfully.

“We warned him away, then a spaceyacht zoomed up over the horizon, picked up the man, who space-jumped into it, and rocketed straight at us!”

The sergeant's face turned suddenly grim and hard.

“That's just what happened, sir,” Dig added earnestly. “That yacht rammed us deliberately!”

The Guardsman shook his head. “But there was *no other, spaceship* anywhere near Eros!” he said.

### 3 The Secret Project

FOR SEVERAL BREATHLESS MOMENTS, THE YOUNG Space Explorers stared at Sergeant Brool in astonishment.

“No ship?” Ken finally gasped. “No ship at all?”

“What do you think rammed us, sir?” Jim asked indignantly. “A ghost ship?”

“That hole wasn't made by a ghost,” the sergeant said, shaking his head. “No, lads, I believe you.”

“Why did you say there was no other spaceship in the area?” Dig asked calmly.

“Orders have gone out for all spaceships to stay away from Eros.”

“Someone disobeyed those orders,” Dig said. “What's more, a passenger was picked up from Eros.”

“Any ship in the area would be reported at once,” the Guardsman said. “And no one is permitted to leave Eros without a special pass signed by me.” Angrily, he added, “To see that this is done, I have a whole squad of Space Guard rookies and a communications director to help me!”

“Well, sir, they don't seem to have helped,” Jim said.

“I intend to find out why!”

With a swift, determined stride, the sergeant reached the control board. He flipped on the communicator switch and leaned over the microphone. Then, unexpectedly, he stopped and closed the toggle switch.

“No,” he said. “I'll get to the bottom of this when we return to Eros.”

“You don't want to broadcast the information,” Dig said quickly, watching the Guardsman attentively. “Is that it, Sarge?”

The Guardsman nodded. “There's too much at stake. Dr. Barry will tell you about it.” He looked at Ken and Jim. “As Director of the Space Research Bureau, your

father must decide how much you're to know... and when."

"He didn't tell us anything," Jim said, shaking his head. "All he did was ask us to set up a series of radio beacons on the asteroids."

"Be satisfied with that for the time being, lad," the Guardsman advised. "Now I want to get back to Eros. You'll be able to get there on your own power."

"Aye, sir, and thank you."

"And don't run into any more mystery ships," the sergeant said with a smile. "Next time you may not be so lucky!"

He put on his spacehelmet, stepped through the door, and shuffled down the passageway to the airlock.

The three boys waited until Sergeant Brool returned to his ship. When the magnetic grapppler fell away and the steelite cable had been reeled back into the *Galahad*, Dig set the course for asteroid Eros, and blasted away.

Still shaken by their narrow escape, the boys gazed out of the viewport in silence. Dig kept his hands on the controls, releasing jet spurts from time to time to avoid the areas dense with spacedust.

Presently Eros appeared in the distance.

"Home," Ken said softly as he looked at the asteroid.

It was the second home in space for the Barry brothers. Originally, they had left Earth to live with their parents at the Space Research quarters on the moon. On the spaceship bound from the Earth to the moon they had met Dig Allen, the son of Captain Boyd Allen, famous Space Explorer.

Since that first meeting, the three boys had become inseparable spacemates. Amazing adventures and the many dangers of space travel cemented their friendship. Together they had joined the Space Explorer Corps.

As they approached the asteroid, Dig steered the *Starover* into a cautious orbit.

"Let Sergeant Brool land first," he said.

The two ships had arrived almost at the same time. Now the boys watched as the patrol cruiser turned and moved tail first toward the landing area.

They circled the asteroid twice by the time the *Galahad* landed.

"The Sarge is waiting for us," Jim pointed out as Dig turned the *Starover* about for the landing.

The Guardsman was standing beside the mushroom-like airlock of the asteroid, his orange spacesuit glowing against the clark ground.

The *Starover* turned slowly, pointing her nose spaceward, then began to come down. For a moment, the boys had a clear view of Eros. The asteroid was twenty miles long and only five miles across at its widest.

Within, the asteroid was hollow. Its many *floors* and rooms were filled with the scientific remains of a great, but long-forgotten, civilization.

After the secret of the asteroid had been discovered, the Space Research Bureau moved its headquarters there. As director of the scientific work, Dr. Keith Barry moved his family to the new home on Eros.

The boys were impatient as the spaceship touched the ground. Dig hurriedly released the anchor spikes, which dug deep into the hard soil and held the ship from drifting off into space.

"All right," the red-headed boy announced. "Let's get into our spacesuits."

Sergeant Brool called to them over the radicom as they climbed down. The power of the radio in the spacehelmet was tuned to a low range so that his voice came to them almost in a whisper.

"Don't say anything to anyone about the crash or the man in the red spacesuit," the Guardsman ordered.

"Not even to Dad?" Ken asked.

"You may discuss it with him, of course."

The Guardsman stepped to the metal platform beneath the airlock cover. When the boys joined him, he

pressed the heel of his boot on a black spot on the floor. The column holding the cover began to turn; the floor on which they stood descended and the opening overhead slowly closed.

The metal walls of the shaft glowed with a cool, clear light. When they reached the bottom, part of the round wall slid open.

They went through the door into a box-like metal room. There was no sound of machinery and no sensation of movement. Still, the asterian elevator, they knew, was bringing them up again to the highest level of *floors* inside the asteroid.

They slipped off their spacehelmets. The air in the elevator was fresh and pleasant. They were silent until they reached the top and a door slid open. Then the sergeant motioned them out into the long corridor.

"I think you'd better report to Dr. Barry before you see anyone else. He's anxious to see you," he said. "I'm going to put an emergency repair crew to work on your ship right away."

"Aye, sir."

The Guardsman stepped back into the elevator and the door slid shut behind him.

Jim ran his fingers through his long hair, brushing it back from his eyes.

"Well, I guess we'd better go see Dad."

The three boys hurried down the long corridor stretching straight ahead of them for almost two miles. The gravity on the asteroid was so slight that they could travel swiftly in long, loping steps.

The corridor ended in a circular hall from which five smaller passages radiated. The central passage led to the asterian observatory and the rooms which served as Dr. Barry's office. The boys turned into the passageway.

"How do I look?" Jim asked, nervously brushing back his hair, when they reached Keith Barry's door.

"Good enough to face your father," Dig answered, laughing.

Ken chuckled. "Asking that question's a habit Jim has from the days Dad used to look behind his ears to make sure he'd washed."

"A spacejoker," Jim muttered and placed his hand on the black spot. A door slid open in the wall, and the three boys stepped into the reception room.

Through a second door, partly open, they saw Keith Barry bending over a pile of papers on his desk.

"Hi, Dad!" Jim called out.

Dr. Barry looked up, his face breaking into a smile. He rose from his seat and came around the desk to embrace his sons and their friend.

"You had me worried for a while," he said, laughing.

"Dad, I'll confess for all of us—we were worried, too," Jim said.

"You *know* what happened?" Ken asked, surprised.

"Sergeant Brool called in a complete report to me before you landed on Eros."

"And he warned us not to talk about it!" Jim cried.

Keith Barry smiled. "He used spacecode to talk to me. No one could unscramble the signal."

"Dad, we haven't been to see Mother yet," Ken reminded him.

"I know," the scientist replied. "I just called and asked her to get dinner ready. We have a little time."

He stepped behind his desk and switched on his intercom.

"Spangler here, sir," a voice came from the desk speaker.

"Bring me the report filed by Captain Boyd Allen."

"The Jupiter report? I was just going to run it through the duplicator."

"That can wait a little while. Please bring me the original now."

"Right away, sir."

The scientist turned to the boys. He was a tall man with a trim, athletic build. His hair was black with a touch of gray at the temples. He had a handsome, gentle face and black, piercing eyes.

"I thought you might want to know what's been happening around here," he said, the bare suggestion of a smile on his lips.

"We're not a bit curious," Jim replied mischievously. "We don't even want to know why you had us chart a passage through the Asteroid Belt, or set up radio guide beacons."

"Or the reason for the extra Space Guards being stationed here," Dig added grinning.

"We're not curious-not much, we aren't!" Ken concluded.

"I didn't think you'd be," his father said, unable to suppress a broad grin. "But I must insist on telling you."

"If you insist, sir, go right ahead!" Dig said.

"The radio beacons were set up so that ships could avoid dangerous asteroids. The route through the Asteroid Belt is for the many ships that will soon be going that way. The Space Guards are here to protect the scientific secrets we've found since we began to use the Langivac. That's the computer we made to translate the ancient Asterian language. We've found some amazing scientific information, and we're testing it."

"You're going almost too fast for us, Dad," Jim said, shaking his head.

The scientist grew serious. He leaned back against his desk, crossing his arms over his chest.

"We are setting up a colony on one of the moons of Jupiter." Turning to Dig Allen, he continued. "You know your father has been out there exploring for a long time."

Dig nodded silently.

"He was picking the site for our experiment. Mr. Spangler will bring in his report. In the meantime, I can tell you he picked Ganymede for our colony."

“Ganymede?” Jim asked. “Why that one?”

“There are four important moons in the dozen circling Jupiter. Ganymede and Callisto are larger than the planet Mercury.”

Jim whistled softly. “And bigger than Earth's moon!”

“Yes, and the moon we call Io is bigger, too. Europa is about the same size as Earth's moon.”

“So Dad picked Ganymede,” said Dig, looking up at the scientist.

“Callisto has a thick layer of frozen gas. The others were unsuitable for other reasons. But Ganymede has earth and rocks and a certain valley which is necessary for our experiment.”

“What experiment... what valley, Dr. Barry?” asked Dig. “This valley is—” Keith Barry stopped as the door opened.

A short, stout man came in, mopping his perspiring brow and looking about him in confusion.

“Dr. Barry... I...”

“What is it, Mr. Spangler?” the scientist asked gently.

“The Boyd Allen report, sir...”

“What about it?”

“It's not in the safe, sir... it's gone!”

“Gone?” Keith Barry frowned. Then he said sharply, “Get Mr. Rowan, the communications director, in here right away!”

“He's gone, too, sir!” Spangler shook his head helplessly.

“What!” cried the startled scientist.

“Yes, sir, Mr. Rowan's gone! He... I think... that is... I think he took the Jupiter report!”



## 4 New Worlds to Win

KEITH BARRY SAID NOTHING AS HE LISTENED TO Spangler's stumbling words. He stood beside his desk, frowning, in deep thought. There was an angry glitter in his dark eyes. After a moment he leaned over his desk and switched on the intercom.

"Connect me with Sergeant Brool," he requested calmly.

"Aye, aye, sir."

A moment later there was a click on the loudspeaker, followed by the voice of a youthful Space Guard.

"Space Guard control. Sergeant Brool's not here, sir."

"Find him at once. This is Keith Barry. Ask the sergeant to come to my office."

"He is on his way to your office, sir. He should be there any minute."

"Thank you."

The scientist closed the switch. He glanced at the three Space Explorers, who were watching him silently.

"This is serious," he said, shaking his head. Then, to Spangler, "You're sure the Jupiter report is gone? No possible mistake?"

"No, sir," Spangler replied. "I searched all our files. But I put it in the safe myself yesterday. It's gone."

"How important is the report?" Ken asked.

"As important as eyes are to a man," his father answered. "Our plans depend on that report!"

"I'm sorry, sir," Spangler said.

"It's not your fault. You may go, Mr. Spangler. Request a full investigation from the Space Guards."

"Yes, sir."

Spangler stepped through the door and almost collided with Sergeant Brool.

"Well!" the Guardsman cried, striding to the middle of the room and looking at the three young Space Explorers. "You lads were right! There *was* another spaceship here!"

"Why didn't radar pick it up?" Dig asked.

"It did!" the sergeant roared. "Reports were sent to me! But that Rowan, the communications director, tore them up! They never reached me! I'll have that man—"

"You'll have to catch him first," Keith Barry said quietly. "He's gone."

"Gone? Catch him?" The sergeant looked bewildered. Then, "You bet I will," he cried.

"When you do, get me Captain Boyd Allen's report on Jupiter. Rowan seems to have taken it with him."

"Blast him!" the Guardsman raged.

"He must have been the man in the red spacesuit!" Dig cried. "But why would he steal the report?"

"A number of strange things have happened." Keith Barry was thoughtful as he looked at the red-headed boy. "Our communications with Ganymede keep breaking down. There's trouble there. But we don't know what it is. We now suspect someone's trying to stop the experiment!"

"But why?" Jim asked, puzzled.

The Guardsman scratched his long, thin nose. "We don't know, Jim. We just don't know. It's a complete mystery."

Quietly, Ken looked at Jim and Dig, and then at his father.

"But Dad, we still don't know what the experiment is. What's Space Research trying to do on Ganymede?"

Keith Barry smiled. "You're right, Ken. Before we can get anywhere trying to solve this mystery, you boys need to be filled in on its background. We've got to go about this patiently and calmly."

"Right, Dad!" Jim agreed. "What do we do first?"

"Why, we go home and have dinner," his father said, smiling.

"Huh?" Jim stared at the scientist. "But this is an emergency!"

"It certainly is," his father agreed. "That's why we'll take it slow and easy. After we eat, we'll go over what facts we know and try to think."

"But, Dad—" Jim began.

Dig touched the boy's shoulder. "Your father's right, Jim."

Dr. Barry glanced at the sergeant. "Will you join us?"

"No, I've too much to do just now, sir."

"Very well." The scientist motioned the boys toward the door. "Let's go. Mother must be wondering what's keeping us."

Dr. Barry was silent as he led the way down the corridor to the central hall. From there they turned into the last of the small corridors. A short distance further brought the group to the door of the Barry apartment.

The scientist placed his hand on the black button and the door slid open. He stepped back to let the three boys enter first.

Just inside the door, Mrs. Barry was waiting for them. She was a slender, pretty woman with a bit of gray in her hair and a pleasant smile on her face.

"It's good to have my boys home again," she said, giving each one of them a hug and a kiss as they came into the room.

"Somehow I can't get used to the idea of having you gallivanting about in space."

With a quick laugh, her husband said, "We're all hungry, Jane. Is dinner ready?"

"You're trying to change the subject, Keith!"

"That's true," the scientist admitted. "It also happens that we really are hungry. And science shows that the younger they are when they start, the better spacemen they will be."

"Then come along," his wife laughed. "Without any lectures, please."

Mrs. Barry led the way into the next room, where the meal was already on the table. They sat down and ate amid gay chatter and the clatter of plastic dishes.

When the meal was over, Jane Barry cleared the table. The three boys had started to rise when a motion from the scientist stopped them.

"Feel better?" he asked.

"Lots," Jim replied.

"Let's talk," the scientist said.

"All right," Jim announced. "I think that the man in the red spacesuit was this Rowan."

He looked around at the others as if expecting someone to contradict him. No one did.

Dig said, "But why did he steal the Jupiter report?"

"For valuable information?" Ken suggested.

"That depends on what information he was looking for," Keith Barry said. "I found only scientific information in the report. Important to us, but..."

"My father may still have the original tapes of the report," Dig said. "Where is he now? Are you in touch with him?"

Dr. Barry shook his head. "Captain Allen is exploring somewhere off Saturn. We may not hear from him for months."

"Then we start from scratch!" Jim said. "Worse than that, we're behind scratch! Rowan has the report and we haven't."

Ken turned to his father. "Dad, suppose you tell us first what this experiment on Ganymede is all about."

The scientist paused for a moment, then said, "Ganymede has no atmosphere, as you know. Well, we are trying to create an atmosphere there!"

"An atmosphere? You mean air that people can breathe?" Jim asked, surprised.

"As good as the one on Earth."

"But that's impossible!" Ken cried. "Even if we could

carry tanks of air to Ganymede, the gravity there isn't strong enough to hold the atmosphere down. It would escape into space!"

"It would escape into space, that's true. But that would take a million years or more."

Dig leaned tensely across the table. "Dr. Barry, are you telling us you have a new theory about the atmosphere?"

"It's not a new theory by any means, Dig. The atmosphere will escape slowly, a molecule at a time. Or atom by atom. That'll take a long time."

Ken said, "But to bring the millions of tons of air to Ganymede..."

"We're not going to bring it there," his father said slowly. "We're going to manufacture the air right on Ganymede!"

"How in space can you do that?" asked Ken.

"Do you mean how on Ganymede?" Dr. Barry chuckled. "We have a new and still secret machine, a cosmic furnace we call the nuclatomizer! Outside of myself and two of my assistants and Sergeant Brool, you are the first to find out about it."

"And it makes air..." Dig said curiously. "How?"

"It takes matter-any material like stone, earth, sand-and breaks it apart. First into molecules, then into atoms, then into electrons and protons and neutrons. And finally it breaks up even the electrons into bits of free energy."

The scientist stopped to watch the *effect* of his explanation on the three boys. They were staring at him in surprise and excitement.

"Tremendous heat and energy is released as the particles of free energy boil in a sort of thick, nuclear soup..."

"But such a mixture would be hotter than the hottest sun!" Jim cried. "What do you keep it in? This... this nuclear fluid would melt... would vaporize... the toughest metal known!"

"That's true," his father said with a slight smile on his

lips. "We made a *magnetic* boiler. It's a hollow ball made of very fine mesh wire. A powerful electric current turns the mesh into a magnet. If the nuclear fluid touched the wire, it would melt instantly. But it never *does* touch it. The magnetic force bounces the particles of energy away so that the nuclear fluid actually floats inside the ball of magnetized wire."

There was silence as the three boys thought this over.

"Of course," Dig said. "Just as the north pole of one magnet pushes away the north pole of another magnet!"

Dr. Barry nodded. "That's the idea."

"But you said you can *make* air!" Dig said. "How do you take out the atoms or electrons-what you need to make something?"

"With another powerful magnet," the scientist said. "We have the second magnet outside the wire mesh. We set the second magnet to attract tiny bits of energy, which shoot right through the wire mesh and form into the element we want."

"Then nucla machines can make *anything*!" Ken exclaimed.

"I'm afraid not," his father said. "We can make oxygen, hydrogen, carbon, and nitrogen. What else the nucla machine can make depends on improvements we hope to make in the future."

"If it makes oxygen and hydrogen, then could it combine these to make water?" Dig asked. "And combine oxygen and nitrogen for an atmosphere?"

"With a little carbon dioxide," the scientist agreed, "to make it closer to Earth's atmosphere, and help us someday to grow things..."

"How... how did we find out how to do it?" Jim asked.

"From the scientific secrets we've found here on Eros," his father answered, tapping the table with his finger to emphasize his words. "The ancient Asterians who hollowed out this asteroid knew the secret. Our Langivac with its computer brain solved the old language and translated the information."

"But that means we can create atmospheres on planets and moons which are dead now!" Dig cried. "There are new worlds for us to live on all through the Solar System!"

"Yes," the scientist said. A dreamy look came into his eyes. "Mankind has changed the appearance of the Earth. Today we have a dam between Africa and Gibraltar, turning the Mediterranean Sea into a lake. Several million people live on the Atlantic and Pacific oceans on seadromes which are floating cities! The Earth doesn't look like the Earth that people knew back in 1970."

"And now," Dig said thoughtfully, "now we are going to change the Solar System. It won't look the same a hundred years from now!"

"How's that?" Jim asked, turning to his friend. "We can settle all over the place, but that won't change the Solar System!"

"With so much energy to use, why can't we move some of the distant planets closer to the Sun?" Dig said enthusiastically. "Neptune or Uranus, for example? Put them into an orbit between Earth and Venus?"

Jim shook his head. "You're way ahead of me!"

Dr. Barry smiled. "He's right, Jim. Someday we may do just that! But make it a little more than a hundred years from now, Dig."

"What part does Ganymede play in the plan?" Ken asked, bringing the discussion back to practical matters.

"It's the first step," his father replied. "We must show that the nuclatomizers really work. *If* we fail on Ganymede, the World Council will not permit us to continue experiments with the machines. At the same time, the experiment must be kept secret until we know it works. We can't afford to arouse the hopes of millions of people, and then dash them by failure."

"And the Jupiter report was stolen to block the project?" Jim asked.

"I don't know," said Keith Barry, shaking his head. "It certainly looks that way."

The scientist rose to his feet and walked away from the table, his hands clasped behind his back, his head bent low. The three boys waited for him to speak again. He paced the room for a moment, then looked up.

"Will you boys go to Ganymede and report on how the work is coming along? I can trust your judgment—and I know I can trust you."

The young Space Explorers were silent. The scientist waited for their answer.

"I can't call the colony," he continued. "The communications system keeps breaking down—and I don't know who can be trusted there now."

"I think, sir, we'd all like to be a part of this wonderful project," Dig Allen said finally.

"Now that the Jupiter report has been stolen, I want you to stay there—and make a report to replace Boyd Allen's."

"Aye, sir!" Dig said. He glanced at his two friends. Their eyes were shining with excitement.

"We can leave as soon as the *Starover* is repaired," Ken said.

"Good! The first group of spaceworkers is already on Ganymede " the scientist told them. "Three nuclatomizers have been set up and are making air and water for the colony.

"How about the settlers?" asked Jim.

"The ship bringing the colonists and their families is already on the way. It should be entering the Asteroid Belt about now."

The scientist sat down at the table and motioned the boys to pull up closer to him.

"Well," he said, "let's get down to business. I'll tell you what we need to know. First, the valley where the colony is being built has to be explored, mapped, and surveyed..."

It was some time before the scientist had finished outlining the work that had to be done. The young Space



Explorers had many questions about their task and the time passed quickly. Jane Barry came in several times, but except for bringing refreshments, she did not interrupt them.

Finally the scientist rose and walked over to the wall intercom. He pressed the switch and called Space Guard control. The boys waited quietly while he carried on a low-volumed conversation. When he had finished, he turned to them. I've just been informed that Sergeant Brool's emergency repair crew has finished," he said. "The *Starover* can blast away whenever you're ready."

"We'll leave at once!" Dig said.

A startled exclamation came from the doorway. Dig turned. Jane Barry had just come in from the little kitchen of the apartment. Her face pale, she stood and stared at the boys.

"You're not going off into space again!"

"Yes, Mom," Jim said, avoiding her eyes. "We've got to go."

Mrs. Barry looked at her husband. "Must they? Isn't there anything you can do?"

The man shook his head.

"We'll be careful, Mom," Ken promised.

"I know you will," his mother said, sadly. "But you *are* going out into danger. I can't help worrying, you know."

They said their goodbys and quietly left the room. In the corridor, Dr. Barry looked at the three boys. "Your mission is important... and, I'm afraid, dangerous. Take no unnecessary chances!"

"We'll be careful, Dad," Ken said.

"The worst of it," Dig said thoughtfully, "is that we don't know where the danger is coming from. Or why. But it will come!"

## 5 Call For Help

THE *STAROVER* STOOD ON HER THREE GRACEFUL FINS with her trim nose pointing spaceward. The gashed metal in her side had been repaired. Sunlight coming over the near horizon of Eros glittered on her shiny hull.

Sergeant Brool, dressed in the bright orange spacesuit of the Guardsmen, accompanied the three boys as they came out of the Asterian airlock. He was thoughtful as he walked beside the, Space Explorers.

"The S.S. *Newton* isn't very far ahead of you," the sergeant said as they reached the base of the explorer ship. "Keep an eye out for her."

"Any special reason, Sarge?" Ken asked.

"Nothing special, Ken. But she's carrying the second group to Ganymede and more than half the people on board are not spacemen. Mainly colonists and their families."

"Space pioneers!" Jim said loudly, his voice ringing over the earphones inside the helmets. "I've never really met pioneers... except in books about the old West."

The sergeant chuckled. "Well, the *Newton* is an old ship. Slow, but spaceworthy and safe. You'll pass her before she's out of the Asteroid Belt."

"Maybe we can visit them," Jim said.

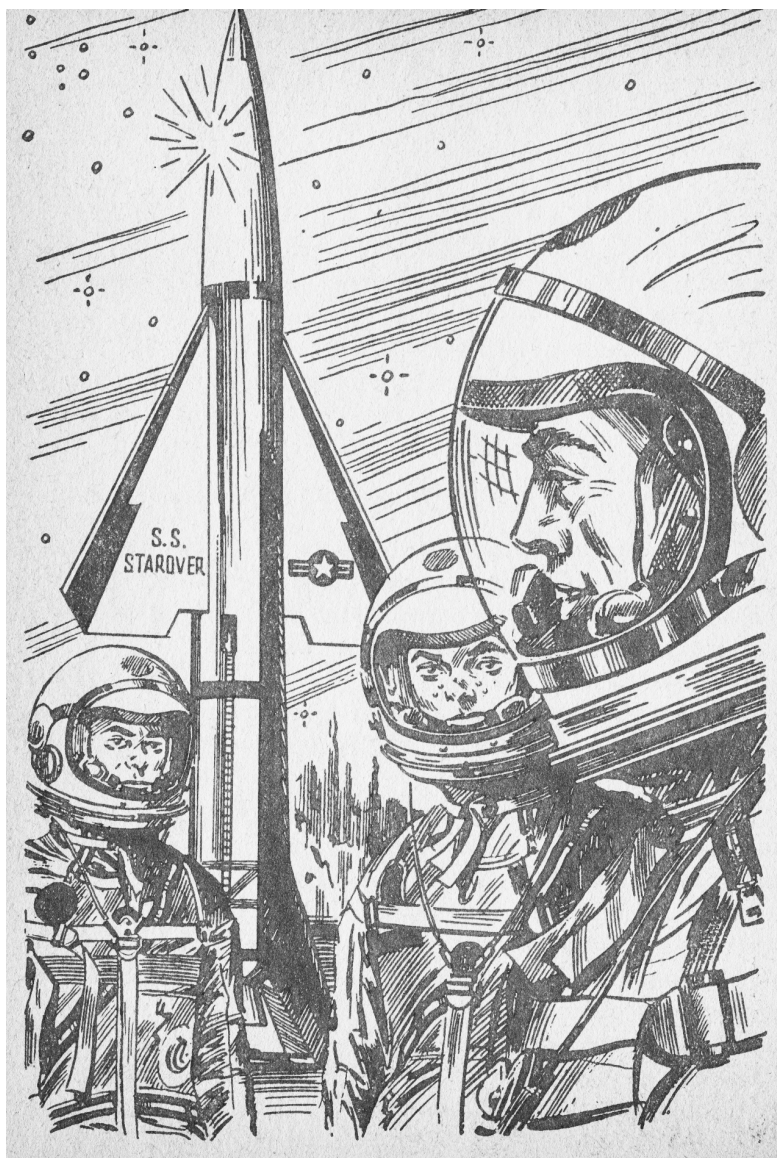
"We'll get that chance on Ganymede," Dig said. "This time, though, we'll just pass the pioneers without a social visit."

"Aye, aye, sir!" Jim laughed. He reached the wire ladder, grasped it with his gloved hands, and began to pull himself up to the airlock.

"See you when we get back, Sarge," Dig said.

He followed Jim up the wire ladder and Ken came after him.

Sergeant Brool waved his hand. "Keep your wits about you," he called over the radicom. "I don't want to be going after you again."



"Don't worry, Sarge."

Dig shut the airlock. A few moments later they stowed their spacesuits and climbed forward to the control cabin.

Faintly, over the radicom came the voice of the Guardsman.

“May the luck of space ride on your shoulders!”

“Aye, aye, sir! And thank you!”

Dig took his place in the pilot seat. He released the anchor spikes. A short, low-pressure blast from the rockettubes pushed the spaceship away from the asteroid.

Jim turned on the rear scanner and they watched the ground fall away. For a long time they watched the tiny figure of Sergeant Brool standing motionless beside the Asterian airlock.

“Well, don't you think we ought to blast away?” Jim said, smiling. “The Sarge might think we've got engine trouble.”

Dig nodded. He set the power dial for 3-*G* acceleration and released the lever. A stream of hot jet-plasma shot out of the rockets, thrusting the spaceship ahead.

Locking the controls on automatic, Dig swiveled around in the pilot seat.

“Space routine from now on,” he said. “Ken will relieve me in four hours. Jim, you'll take the third watch.”

The tall boy smiled. “Eight hours to loaf. I don't know what to do with myself.”

“Try studying a little more than you've been doing in the last few weeks,” his brother suggested.

“I'd rather try to contact the *S.S. Newton*,” Jim said.

Ken shrugged. “I've got four hours before my watch. I'll get a study tape of Jupiter and learn something about its moons.”

“Do that, young one.” Jim laughed, patting his brother on the back.

Ken smiled and left the control cabin. The tiny study room was a few steps down the passageway and he disappeared into it. Jim pushed himself into the co-pilot seat.

“Aren't you curious about the space pioneers?” he asked, glancing at the redhead seated beside him. “What kind of people are they? Why do they give up their old homes and friends to go to a new land to settle?”

"I've wondered about that many times," Dig replied. "What made our ancestors cross the Atlantic Ocean to come to America? And then cross the Great Plains to settle in the West?"

"Maybe we'll find out when the colonists reach Ganymede," Jim said, "since you won't let me visit the *Newton*..."

Dig smiled as Jim snapped on the radar system and began to turn the dial, probing spaceward in wider-sweeping beams. His search was unsuccessful. After an hour, he gave up.

"Think I'll go get some sleep," he said, shutting the set off.

"Couldn't find the *Newton*?"

"Nope. Must be too far ahead of us."

He shuffled out of the cabin and Dig turned back to stare through the viewport. But for a long time he was troubled. That ship should not have been beyond the range of their radar, especially since Jim had concentrated the beam ahead in the direction of Ganymede. Yet, the radar screen had shown nothing.

When Ken came to relieve him at the controls, his uneasiness had increased. Instead of leaving the control cabin, Dig switched on the radar equipment.

"I'm going to find the *Newton*," he said.

"Now you're getting as curious as Jim."

"I've got a better reason for it than Jim had!"

His search was no more successful than that of his friend.

He leaned back in the foam-pad seat and stared moodily at the screen.

"She's disappeared," he said after a while.

"The *Newton* is a big ship," Ken said. "How can she disappear?"

"I don't know. I pick up spacerocks and planetoids and pockets of dust clouds. But no moving spaceship."

“One of the spacerocks may be the *Newton*.”

“No. The radar screen would show a spaceship in a straight movement. Asteroids drift...”

“Well, maybe the *Newton* is drifting, too,” Ken said. He looked up, startled. His eyes met those of his friend. “Drifting? She'd be in trouble!”

“Wait a minute, Ken. We don't *know* that!”

Ken scratched his bristly blond head, grinning. “I guess you're right. They'd have sent out a call for help...”

Dig sent the radar beam searching ahead again, leaning toward the screen, his eyes fixed intently on the circling sweepline.

“Brake the ship,” he ordered. “The *Newton* should be somewhere in this area.”

Ken obeyed, firing the nose rockets.

“Have we caught up with her?”

“Just about,” Dig replied. “Switch on the all-wave pickup.”

They might be sending out some kind of signal for help!”

Ken followed the red-haired boy's directions. The radio waves were silent. Only the strange crackling of static from distant stars and galaxies came over the speaker.

“Speed reduced to asteroid drift,” Ken announced some minutes later. “What do we do now?”

“Check our position on the computer!”

While Ken punched figures into the “thinking machine” which every spaceship carried, his friend continued toward the radar beam. Instead of concentrating on the space ahead, he sent the probe in ever-widening circle sweeps around the *Starover*.

“What do you read?” Dig called out.

“There's a magnetic current around here. It's pulling us toward portside.”

“Compute the magnetic current,” Dig said. “Then set

course and blast in that direction.”

“I’ve got it,” Ken replied. “But that’s not such a good idea, Dig.”

“Why?”

“Because it’ll take us into one of the thickest parts of the Asteroid Belt.”

“Go slowly. If the *Newton* is out of control, she would drift with the magnetic current. We’ve got to find out.”

“Aye, aye, sir!” Ken’s face was grim as he set the controls and began to fire short, low-power blasts.

Dig switched off the radar and flipped on the magnascope. On the screen appeared the part of the Asteroid Belt into which they were heading.

A thick cloud of dust, stretching for thousands of miles, hung mysteriously before them. The shape of huge rocks could be seen faintly through the mist.

“That’s the source of the magnetic current,” Dig said. “That cloud!”

Ken concentrated on the controls.

“There would be an electrified field around it, then,” he said. “Perhaps that’s why we can’t hear any signal from her.”

“If the *Newton*’s inside that cloud, she’s in plenty of trouble!”

The *Starover* was cautiously poking through the thin, gauzy edges of the dust cloud when the first signals came over the radio.

The voice from the speaker could barely be heard through the loud crackling of static. Occasionally, a word could be understood. They listened carefully as the *Starover* moved into the thicker part of the cloud.

“They’re calling for help!” Ken cried excitedly. “I can make out a few words!”

“Wake Jim!”

“Aye, aye!” Ken pressed the button and the alarm rang through the ship.

"I've got it!" Dig exclaimed triumphantly. "There she is!"

He pointed to the magnascope screen. The shadowy image of a spaceship appeared through the fog-like mass of dust.

"What's up?" Jim asked, coming into the control cabin.

"We've found the *Newton*," Dig said.

Jim looked at the screen. "Imps of space!" he declared. "She's drifting, out of control!"

"Bring us in to shoot a tow cable across," Dig ordered.

"Aye, aye, sir!"

Cautiously, Ken maneuvered the *Starover* alongside the passenger ship. Then he pressed the button releasing the magnetic grapples.

In a slow, lazy loop, the round magnetic disk floated through space and struck the hull of the helpless ship.

"Reel in!" Dig called.

The steelite tow cable grew tight. The *Starover* blasted and began to move out of the cloud. The colony ship followed it.

The three boys waited patiently as the *Starover* pulled out of the thickest part of the cloud. After a while, only wisps of the dust remained around them.

"Bring us back on course," Dig said.

They were soon free of the magnetic current. The videoscope became clear and the wavy lines slowly came into focus.

"*Space Ship Newton* calling!"

It was the deep, gruff voice of a veteran spaceman that came over the speaker. A grim, black-bearded face stared at the Space Explorers from the videoscope screen.

"*Explorer Ship Starover* to the *S.S. Newton*," Ken answered. "We thought you were in trouble, sir. So we towed you..."

"*Thought* we be in trouble!" the bearded man roared in the rhythmic word pattern of old spacemen. "Have ye no



eyes to see? We *were* in trouble! Aye, as bad trouble as I've had in thirty years of sailing the deeps!"

"Well, sir, we've got a tow cable across. We'll hold you on course until you can continue on your own."

"Aye, and thank ye, lads!" the man said.

"May we come aboard, sir?" Jim asked. "Perhaps we can help fix whatever is wrong with the ship."

"Nothing be wrong with the ship that we can't fix!" the man roared. "She's as good as any that sails deep space!"

"Then, what happened?" asked Ken.

"Someone be trying to kill us, that's what!" the bearded man continued angrily. "Man, I've sailed the mighty spaceways for a long time, but never have I seen such a low-down trick!"

The boys remained silent in the face of the man's anger. After a minute, he calmed down.

"I'm Captain Tungaard," he introduced himself. "And you be Space Explorers, eh?"

"Aye," Dig replied.

"Well, someone on my ship blew the main switches!"

"Could it have been an accident?" Ken asked.

Captain Tungaard shook his head. "No accident, mates! A steel bar was used on the main switch box. Shorted the electrical system and killed all our controls!"

"Why would anyone do that, Captain?" Dig asked thoughtfully.

"To kill us! The ship and the crew and the passengers!"

"But whoever did it would also be killed!"

"Aye! So he would! Spacemad! But that's what happened, all the same!" the Captain insisted. "Aye, to wreck the ship and kill himself! That be what the criminal tried to do!"

## 6 The Killer

THE FULL MEANING OF THE SPACEMAN'S WORDS LEFT the Space Explorers speechless. They found it hard to believe that anyone could be so desperate as to destroy himself along with the colony ship.

The bearded captain broke in on their thoughts. "Well, ye may stand there gawking all ye want. I've no time for it!"

He reached out to switch off the connection.

"Captain Tungaard," Dig suddenly spoke out. "May we board your ship?"

The bearded man frowned, eyeing the three boys suspiciously. After a moment, he nodded.

"Come aboard if that's what ye want," he said. "But stay out of the way of me crew."

"Aye, sir," Dig promised, and flipped off the switch. The screen went blank. He turned to Jim. "Break out our spacesuits."

"Wait a minute," Ken protested. "What about me?"

"You're on watch," Jim reminded his brother, chuckling. "you get bored, study some tapes on Jupiter."

He jumped out of the control cabin before his brother could reply, and sailed down the passageway toward the airlock.

"This isn't a pleasure visit, Ken," Dig remained behind to explain. "I'm going there to look for something."

"What?"

Dig shrugged his shoulders. "I don't know. A bit of information... perhaps some kind of a clue."

"Go ahead," Ken said, "I'll stand by."

Dig left his friend and shuffled down the passageway, where Jim was waiting for him. Together they put on their spacesuits and entered the airlock. The pumps sucked out the air. They opened the hatch and crawled out on the hull of the spaceship.

The rockets had been cut off. The *Starover*, with the

old *Newton* behind her, moved steadily on course. Jim and Dig went hand over hand along the towing cable to the colonists' ship.

As they emerged from the airlock on board the *Newton*, they found a crewman waiting for them in the passageway. He was slightly built and wore his working uniform with a casual, almost sloppy, jauntiness.

"Greetings, gents," he said cheerfully, "I'm Jocko. The skipper sent me down to give you the grand tour of the ship."

"Glad to meet you."

"Nice of the Captain to provide us with a guide," Jim said.

Jocko winked at them. "I'm to keep an eye on you, gents," he said with a confiding smile. "Captain Tungaard doesn't like people floating loose about his ship... even if they are Space Explorers."

"You've a wise skipper, Jocko," Dig said. The boys watched the little man as he hung their spacesuits in a locker. His skin was deeply tanned and he moved with just a trace of clumsiness as though he was not used to the low gravity of a deepspace voyage.

Jocko closed the locker and turned to the boys. "At your service, gents," he said with a bow. "If there's anything you'd like to see or know about, I'm your man."

"I'd like to know more about you," said Dig seriously. "You don't talk or act like spaceship crewmen we've met before."

Jim glanced quickly at Dig as he caught the faint edge of suspicion in his voice.

But Jocko was smiling. "You're right," he said "I'm new a this business. I was born an Earthworm, like those colonist back there, but I grew up with itchy feet. I'd been drifting around from place to place on Earth for most of my life. Then one day I decided that staying on one planet was getting to confining, so I signed up for this voyage."

"I'm sorry to seem nosy, Jocko, but there's something strange about this accident and anything unusual has to

be checked: Dig was smiling now, too. It was impossible not to like the fellow, with his ready grin and soft speech.

"How about meeting some of the space pioneers," Jim said.

"You bet!" exclaimed Jocko. He began to lead the way aft to the passengers' quarters.

"How did the accident happen?" Dig asked.

"Man, that was no accident. Someone tossed in a steel bar and blew out the main circuits!"

"It could have happened on Mars..."

"It takes just five minutes to blow the fuses," Jocko said. "It was done right after we entered the Asteroid Belt. Took us a while to trace it. Now we're rewiring the burned-out circuits."

"Any idea who did it?"

Jocko shook his head. Then he gestured toward a cabin door.

"Earthworms, but nice people," he said. "Want to meet them?"

"Sure," Jim said.

Jocko knocked on the door. A tall, sandy-haired young man opened the door and looked out.

"Oh, it's you, Jocko," he said. Then he glanced at the two boys, recognizing their Space Explorer uniforms.

Jocko jerked his skinny thumb at Jim and Dig.

"I want you to meet two spacemates of mine. They're looking over the ship."

"Come in," the man said, stepping aside to let the boys enter the cabin. "My name is Jamison, Bob Jamison. And this is my wife Molly," he added. The young woman had a child on her lap. "This is Peg, our very big little girl."

The boys murmured a greeting. The little girl looked at them, wide-eyed.

"Are you coming with us to our new home?" she asked.

"Yes, we're going to Ganymede," Jim said, running his

fingers through his long, loose hair. "We have our own spaceship, though."

"I'm going to raise rabbits," the little girl said. "We'll have It farm, a real one like they have on Earth. With no plastic dome over us."

"Now, Peggy, you hush for a change," Mrs. Jamison said. "Besides, it's time you took a nap."

"But, Mommy..."

Her mother picked her up, lightly, and tossed her into one of the two bunks in the room. The little girl floated through the almost gravity-free air, giggling.

"They promised us a real atmosphere on Ganymede," Jamison said. "It was hard to believe it could be done, but we were tired of the thin air on Mars. So we came along on this expedition."

They were a friendly couple and the boys left their cabin reluctantly. But Dig was impatient to meet the other colonists. Jocko led the way down the passageway, stopping at each cabin to introduce the two Space Explorers.

"We've met most of them," Jim said when they had gone the length of the passageway. "What are you looking for, Dig?"

"Just meeting the people."

"They're ordinary people. Like the folks back home."

"Of course," Dig said.

"I thought space pioneers would be something special," said Jim thoughtfully.

"I think they are," Dig said quietly. "They have courage and hope for the future and are willing to take a chance traveling millions of miles through space. And when they get to Ganymede? They'll face danger and hard work! They're doing it to build a better universe for themselves and their children!"

"That was a long breath!" Jocko said, looking at Dig with admiration. "You sure can make a speech when you have to!"

"Any other family groups?" Dig asked.

"Just one more," Jocko replied, rapping on a cabin door. "An old couple, farmers." He winked at Dig. "That old man sure likes farming. You'd think at his age he'd find an easier place to do it."

The door opened and a tall, lean elderly man looked out.

"What would you be wanting, son?" he asked kindly.

Cheerfully, Jocko waved his hand toward Jim and Dig. "A couple of spacejockeys want to meet you, Mr. Svenson."

The old man shifted a plastic bag he was holding in his hand and shook hands with the two boys.

"Come in, boys, and meet Martha," he said, opening the door wide.

The boys stepped in. An old woman with a fresh, rosy complexion looked up, smiling.

"We're very glad to meet you," she said. "You're not colonists, are you?"

"No, we're Space Explorers," Dig replied. "We're going to Ganymede, too, and thought we'd meet some of you colonists."

"Space Explorers, eh?" the old man said. "How is it out there on Ganymede? Soil good? I've got seeds to plant."

He held up the plastic bag for them to see.

"Seeds?" Jim asked. "It'll be a long time before they'll grow."

"Reckon I won't mind that. Plenty of time!" The old man sat down on one of the bunks and placed the bag in his lap.

"What kind of seeds are they?" Dig asked.

"Apple seeds, and cherry and peach and plum... and maple, too. We'll be tapping for maple syrup some day. Set down a hit and we'll talk. Got questions to ask you..."

"Sorry, Mr. Svenson," Dig said, "we can't visit now. We'll see you on Ganymede."

“Now that's a promise, young man,” Martha Svenson said, beaming at the boys. “We'll be expecting you.”

In the passageway again, Dig looked at Jocko, who said, “Now you've seen them all, all except those with no families.”

Jocko led them to a large cabin toward the end of the passageway. The room, crowded with many men, had been turned into a dormitory. Triple layers of bunks stood along the walls and formed aisles through the center of the area.

The men were a rough, hard-handed lot, all of them experienced space adventurers. Some of them sat around playing checkers, others had cards or listened to tapes.

“These aren't bona fide space pioneers,” Jocko said in a low tone. “After they do the hard work building the colony, they pack up and drift on to the next job.”

“How about that boy?” Jim asked in a whisper. “He can't be a space adventurer! Why, he's only a kid!”

“That's Billy Todd,” Jocko replied. “He's a colonist, but all alone. No family, no friends, no nobody. He's pretty mean, too, but it could be he's just scared. This is his first time aboard a spaceship.”

“The others? They're experienced spacemen?” Dig asked, quickly.

“Like fish in water,” Jocko replied.

“I'd like to talk to Billy,” Dig said.

Jocko grinned. “Be my guest. That kid doesn't like anybody, not even himself.”

Jocko remained in the doorway as Dig and Jim crossed the room to the boy. The spaceworkers glanced at them indifferently.

Dig stopped before the boy, who sat hunched up in his bunk.

“Hi, Billy,” he said with a friendly smile.

The boy glanced at him, a sullen expression on his face, then turned away.

“Worried about the accident?” Dig waited and when

the boy did not reply, continued, "There's no danger any more. Only the man who wrecked the switch box has to worry now. That box was a new type, very radioactive."

"What's that?" asked Jim in surprise.

Raising his voice so that he could be heard through the room, Dig replied.

"The switch box was radioactive," Dig repeated. "If the man who opened it didn't wear lead-lined gloves, he's got a dangerous burn on his hands."

Puzzled, Jim looked at the red-haired boy. "But, Dig..."

"Oh, he'll be all right if he puts some healing salve on his hands right away!"

Without glancing at the boy or the men in the room, Dig took Jim by the arm and hustled him out into the passageway.

"What was that spacegas for?" Jim asked indignantly. "Want to make everyone think Space Explorers know nothing about switch boxes?"

"Everyone heard you," Jocko said, shaking his head.

"That's just what I wanted," Dig said. "Come on."

The Space Explorer led the way down the passageway until they reached a medicine chest fastened to the bulkhead. It was the nearest of several such emergency kits.

Dig glanced about. Seeing a closet near, he opened the door and pushed his two companions inside, then followed. He left the door partly open.

"What are you trying to do?"

"You left me wandering all over space," said Jocko.

"Wait!" Dig said. "If I'm right, the man who tried to destroy this ship is going to show up!"

"You know who it is?" asked Jocko.

"I think so, but I have to make sure."

They waited in silence. For several minutes there was no sound but the steady throb of the pumps circulating the air through the ship. Then came the soft, stealthy



scrape of shuffling feet.

Dig put his eye to the opening in the doorway and looked out.

“Well?” Jim asked softly.

“There's the criminal,” Dig replied in a whisper. “The killer is at the medicine chest, putting healing salve on his hands!”

He moved aside and let Jim look. The boy barely suppressed a startled gasp.

It was Billy Todd.

## 7 The False Passport

JIM SLOWLY TURNED TOWARD DIG AND LOOKED AT HIM in amazement. The thin streak of light that came into the dark closet through the opening fell on the red-headed boy's face.

"How did you know?"

"Colonists with families wouldn't endanger the ship," Dig said. "It had to be someone who came alone."

"There's a whole roomful of single men," Jocko whispered.

"But they're all experienced spacemen," Dig continued in a barely audible voice. "They'd know everyone on board would be killed if the ship went out of control in the Asteroid Belt."

"And they'd be crazy to get themselves killed?" said Jocko.

"Right. It had to be someone who was never in space and didn't know what would happen. Billy Todd filled that bill."

"So you set a little trap that would fool only a landlubber!"

"And it worked, Jim," Dig said, but there was no triumph in his voice.

"I'd better call the skipper," Jocko said, moving toward the door.

Dig gripped his arm. "No! This is more important than just trying to wreck a spaceship," he whispered fiercely.

"But, man, I've got to report this! It's my duty!"

"The Space Explorer Corps will be responsible, not you!"

Jocko narrowed his eyes thoughtfully. "I don't know..."

"Several mysterious attempts have been made to stop the colony on Ganymede," Dig explained hurriedly. "Billy Todd is our first solid clue!"

"If Captain Tungaard finds out..."

"I'll explain it to him if he does," Dig promised. "What do you say, Jocko?"

"All right." Jocko winked at Dig. "I haven't seen a thing."

"Good!" Dig slapped the strange space sailor on the shoulder. "Let's go, Jim."

Dig pushed open the closet door and, followed by his friend, stepped into the passageway. The sudden appearance of the two Space Explorers at his elbow startled Billy Todd.

With a frightened cry, the boy let go the plastube of salve and whirled about.

"There's no danger of radiation sickness, Billy," Dig said, kindly. "I told you that story only to bring you out here."

Rage disfigured the boy's face. He hurled himself at Dig, his fists swinging wildly. Unused to the absence of gravity, Billy flew through the air, crashed into the Space Explorer, and the two of them tumbled over.

"Hold on!" Jim cried.

He reached out, seized Billy by the legs, and pulled him off Dig. Furiously, Billy turned on him. His fist struck Jim on the shoulder. The next instant, Dig had grabbed him from behind and held him firmly.

"Cool down, Billy!" the red-headed boy snapped. "We're not going to hurt you!"

"You'll turn me in!" the little boy raged, thrashing his arms helplessly. "I'll never be allowed to stay on Ganymede!"

"Why did you try to destroy this spaceship?" Dig asked, gently.

Billy remained silent. Dig let him go and the boy's magnetoes clicked on the metal deck.

"Well?"

Unexpectedly, the boy began to sob.

"Didn't you realize that you'd have been killed with all the others?" Dig asked.

Looking down at his feet, the boy answered in a low voice.

"No, I didn't."

"Now tell me why?"

"I can't! I can't!"

"Someone put you up to it," Dig said. "Who was it?"

"The man said it would slow up the ship. That's all he wanted."

"The man wanted to kill everyone on board!"

"No! He was a nice man! He helped me to get on this expedition."

"For some reason this man wants to stop us from setting up a colony on Ganymede," Dig said. "You're protecting a criminal. A dangerous criminal!"

"I'm not protecting him!" Billy cried, tears streaming down his face. "I'm only protecting my—" He stopped abruptly and glared at Dig. "Leave me alone!"

So absorbed were the three boys that they failed to hear a cabin door open behind them. They were startled by a voice suddenly breaking in.

"Leave that boy alone!"

They whirled about to see Martha Svenson standing in her cabin doorway, her eyes flashing with anger.

"The idea of Space Explorers bullying a little boy!"

Briskly she moved past Jim and Dig and placed her hand around the shoulder of the sobbing Billy to comfort him.

"You come with me, Billy Todd," she said.

Surprised, the boy looked up at her.

"Oh, I know you," Mrs. Svenson nodded. "You're all alone. Well, Billy, my husband and I are also alone. Would you like to stay with us?"

Before Billy could reply, the woman glanced at the two Space Explorers.

“And don't you worry about them,” she said. “I won't let them bully you!”

“But Mrs. Svenson,” Dig tried to explain. “We were only asking Billy a few questions.”

“A likely story!” she snapped back. “A few questions wouldn't make him cry!”

She guided the boy gently toward her cabin.

“Adam!” she called out.

The old farmer looked out of the doorway, clutching his bag of seeds close to his chest.

“Yes, Martha?”

“I've asked Billy to come and stay with us.”

The man smiled. “That's a good idea, Martha. Will you, boy?”

“Do... do you really want me?” Billy asked, looking at the two in amazement.

“Of course, Billy!” the woman assured him. Then she turned to her husband. “Well, Adam?”

“We want you, boy. You can even help me plant my seeds.” He patted the plastic bag affectionately.

“All right,” Billy said with a slight catch in his voice.

“Mrs. Svenson, wait,” Dig cried. “We want to help Billy...”

“Help him, indeed!” the woman retorted. “Look at the poor boy! Crying his heart out!”

She went into the cabin and slammed the door shut. Jim shook his head and ran his fingers through his hair.

Jocko was poking his head out of the closet. “Well, that boy sure is a sly one!”

“He's just a scared kid,” Dig said. “And in trouble!”

“In trouble? What kind?”

“We've got to find out,” Dig said. “Jocko, can we see the ship's clerk?”

“Done,” Jocko replied. “Follow me.”

The ship's clerk was in a small cabin close to the stem engine room.

"What can I do for you?" he asked after Jocko had introduced the Space Explorers.

"I'd like to see Billy Todd's record," Dig asked.

"Sure. Got it right here." The clerk pulled out a folder and handed it over.

Several photostatic sheets were inside. Dig studied these carefully. One of them recorded Billy Todd's birth and family history, and he whistled softly as he looked this over.

"Born on Mars," the redhead said. "Parents were among the early settlers. Both killed in a rocket crash, leaving Billy and a younger brother and sister orphans. All three of them have been living in an orphanage until recently."

"Until recently?" asked Jim. "Where are the other kids now?"

"Billy left to find work. Ran away, really," Dig said, reading the information on the photostat. "His little brother and sister are still in the home."

"What about his passport and his permit to join the colony?" asked Jim. "He's too young to be allowed to go on such an expedition."

Dig held up a document for the others to see. It was the passport.

"He has a good passport," he said.

The wall light was just above Dig's head and as he raised the passport, its rays shone through the paper. The Space Explorer gave a start of surprise, but said nothing. He replaced the passport in the folder and returned it to the clerk.

"Thanks," Dig said. "I was curious about the boy."

"Glad to help out," the clerk replied.

Outside in the passageway Dig said to Jocko, "I guess we might as well return to the *Starover*."

The space sailor nodded and, turning, led the way

toward the airlock. Jim stepped close to his friend.

"What did you see on the passport?" he asked. "I saw you jump when you looked at it."

"It's forged," Dig replied. "When I held it against the light, I could see that the original name had been erased and Billy's written in!"

"So that's how the man helped Billy! He got him the permit to join the expedition."

"Yes," Dig said grimly. "So that Billy could wreck the ship and kill himself!"

Nothing more was said until they were in their spacesuits. Jocko opened the inner hatch of the airlock for them.

"Thank Captain Tungaard for us," Jim said.

Jocko raised his hand and signaled farewell as the boys closed their spacehelmets.

They went inside the airlock and pulled the lever. The air hissed out and the outer hatch opened. The two Space Explorers were deep in thought as they returned to the *Starover*.

"Well, what happened?" Ken greeted them as they came into the control cabin. "You both look gloomier than the deepest spaceways."

Quickly Dig told the younger boy all that had taken place on board the *Newton*.

"What do you make of it?" Ken asked.

Before Dig could reply, the videoscope signal sounded. Captain Tungaard's bearded face appeared on the screen.

"Repairs are finished, lads," the veteran space captain said. "Ye can drop the tow cable. We'll be all right on our own."

"Aye, aye, sir."

Ken pressed a button on the instrument panel to release the magnetic disk.

"And thank ye, lads." The captain touched two fingers to the brim of his cap, then switched off.

“Set course for Ganymede,” Dig ordered. “Proceed at space speed!”

“Space speed! We’re still in the thick of the Asteroid Belt!” Ken protested.

“The radio beacons we set up will warn us away from the dangerous rocks,”

Dig said. “We must reach Ganymede as fast as we can!”

“What’s the rush?” Dig looked at Jim, then turned to Ken with a serious expression on his usually smiling face.

“When Communications Director Rowan was on Eros, stealing the Jupiter Report,” he explained, “someone on Mars obtained a forged passport for Billy Todd...”

“And talked him into wrecking the *Newton*,” said Jim.

“Add the trouble on Ganymede...” put in Ken.

“And that means there’s a whole gang working against the colony on Ganymede!” Ken exclaimed.

Jim nodded. “That figures.”

“Members of the gang must be on Ganymede. When they see the *Newton* arrive safely...”

“They’ll know that Billy failed!” Jim broke in excitedly.

“They’ll know more than that,” Dig said. “They’ll also know that Billy could point out the man who put him aboard the spaceship!”

“Billy is an important witness for us!” Ken turned and looked at his friend. His eyes met Dig’s and for a moment there was silence as the dreadful realization grew.

“And a dangerous one for them!”

“You think Billy is in danger?” Ken asked.

“I sure do. They may try to kill him!”



## 8 Danger on Ganymede

JIM BARRY SHOOK HIS HEAD, LOOKED AT HIS BROTHER, then turned to meet Dig Allen's sober eyes.

"I don't understand it," Jim said. "How can anyone want to kill a little boy like Billy?"

"They've already tried," Dig replied. "If we hadn't come along, the *S.S. Newton* would have been crushed among the asteroids. Billy would have died in the wreck. So would the others on that ship, including little Peggy Jamison!"

"What are they after?" Jim asked.

"Perhaps if we had the report my father wrote up, we could figure it out," Dig answered.

Ken did not join in the conversation. He continued to push the engines, accelerating the speed of the spaceship until it was hurtling at an astonishing rate.

They were leaving the Asteroid Belt behind when Jim came to relieve him at the controls.

"Steady as she goes," Ken said, as Jim pushed himself into the pilot seat.

"Aye, aye, sir. Steady as she goes!" Jim replied.

The huge planet Jupiter was already looming ahead of them. The Space Explorers were still too far away to see clearly the thick, frozen atmosphere surging over the surface of the planet like dirty slush.

Slowly but steadily the planet grew larger as the *Starover* sped over millions of miles. Dig was on watch when they passed the outlying moons of Jupiter. He immediately checked his astronavigation charts. Ganymede was now not far away.

As they neared the giant planet, Dig blasted the forward rockets, braking the speed of the ship and turning her into a wide orbit around Jupiter. Jim and Ken, impatient for a sight of the colony, were in the control cabin when Ganymede appeared above the horizon.

"It is big," Ken said. "What a world for us to win!"

Dig slowed the *Starover* again and began to bring the ship toward the moon. Cautiously he was matching speeds.

"Call for landing clearance," he said, glancing up at Ken.

"Aye, aye."

Ken took the co-pilot seat and switched on the videoscope.

"*Explorer Ship Starover* calling Ganymede colony! *Starover* calling Ganymede! Come in, please."

A voice replied over the loudspeaker but the videoscope screen remained blurred.

"Ganymede to *Starover*. Contact made."

"Request landing clearance."

The voice laughed. "Sure, go ahead and land!" There was no humor in the laugh. "We've got enough trouble as it is."

"Who is on duty?" Ken asked.

"What difference does it make anyway? You can land. The spaceport is clear."

"What's the matter with your videoscope? We don't receive any picture."

"You're lucky you can hear me! I just got through fixing the communications system."

"The *S.S. Newton* is behind us," Ken said. "Request landing space that won't interfere with her..."

"There's plenty of landing space," the voice answered. "I you have anything to report, tell it to Fallon, not me. He's the chief of this colony. That's all!"

The man switched off.

Ken shrugged and glanced at Dig. "You heard."

"Sounds like more trouble," Jim remarked.

The *Starover* raced closer to the surface of the moon under Dig's careful handling. Soon Ganymede blotted out

a view of the huge planet. Below, great mountain ranges appeared. Here and there were vast lowlands, dry and rocky as seen from the spaceship.

"If there was enough water," Dig pointed out, "those place would make good lakes and oceans."

"Maybe some day there will be water there," Ken said. "I'd like to go swimming in them."

"We will," Jim said cheerfully. "That is, if this colony ever does succeed."

Over the radio a directional beep began to sound. Dig adjusted the controls and set the automatic landing tapes into the gyrobot. Then he leaned back, placing his hands behind hi head and looking out through the viewport.

"We can't be far from the colony now."

The *Starover* continued to reduce speed. A distant sun cast a clear but weak light on them. Below, the shadow of the ship raced along the uneven ground, bending and leaping over mountains and plains.

Suddenly Dig pointed.

"There's the colony! Beyond those mountains!"

At the same time the rockets came to life, swinging the ship around gracefully. It now moved sideways, the tail fins pointing downward.

Jim switched on the rear scanner and they watched the ground rising and flashing by on the screen.

Presently the ship began to move very slowly. They began to descend, and for the first time the boys could see clearly the massive mountain range over which they had just passed. Its sharp, tumbled peaks reached upward for several miles.

They saw the valley clearly. It reached to the distant horizon, a vast, deep bowl completely surrounded by the high, impassable mountains.

The ship continued to move toward the directional signal. As they came down, the three boys had a quick glimpse of the colony itself.

From their height, it appeared as a great horseshoe.

The plastic domes were connected by covered passageways. The spaceport, marked by several rocket bums, was at the mouth of the horseshoe. In the center stood three massive black structures.

Dig pointed to them. "Those must be the nuclatomizers."

"Can't be anything else," Ken said. "Even from this distance they look like great monsters!"

The *Starover* stopped moving. For a moment it hovered above the spaceport, then began to drop with stomach-twisting suddenness. The rocketubes came to life with a roar. A powerful fiery tail appeared and the ship landed gently. As the jets were cut off, a curious stillness filled the cabin.

"Break out the spacesuits," Dig ordered.

The seats in the cabin had swiveled to match the gravity of Ganymede. The door to the passageway was now a hatch in the deck. The passageway itself was a shaft leading downward.

The three boys climbed down a series of metal cleats to the airlock. There they put on their spacesuits and prepared to leave the ship.

Ken dropped the wire ladder through the outer hatch and climbed out. The others followed him down.

A rocket-jeep came toward them, driven by a man in a blue spacesuit. The boys waited.

"Space Explorers?" a voice called over the radicom. Fallon, chief engineer in charge of this project."

"Glad to meet you, Mr. Fallon," Dig replied.

Fallon swerved the jeep around and came to an abrupt stop before the three boys.

"Hop in. I'll take you to the main dome."

They climbed in and the jeep leaped ahead, the rockets making almost no sound in the near-vacuum.

"Glad to have you boys here," the man said, speaking quickly "I've had nothing but trouble ever since we started work."

“We've been told,” Jim said. “What's happening now?”

Fallon replied, “Tractors breaking down, leaks in the domes...”

He steered the jeep expertly across the central clearing, passing close to the three towering nuclatomizers, and stopped at a parking space. There was a row of similar jeeps parked there.

“Any time you need one of them,” Fallon said with a wave of his gloved hand toward the vehicles, “just help yourselves.” They stepped out of the jeep. The engineer pointed to the plastic domes.

“There's an airlock front and rear for each dome,” he explained. “The domes are connected by airtight passageways with emergency hatches to seal each dome off in case of trouble. Once inside, you can go from one end of the colony all the way around without a spacesuit.”

They entered the airlock of the nearest dome and shut the outer hatch. Fallon switched on the pumps and, as soon as the air filled the entrance, led them through the inner hatch to a large room.

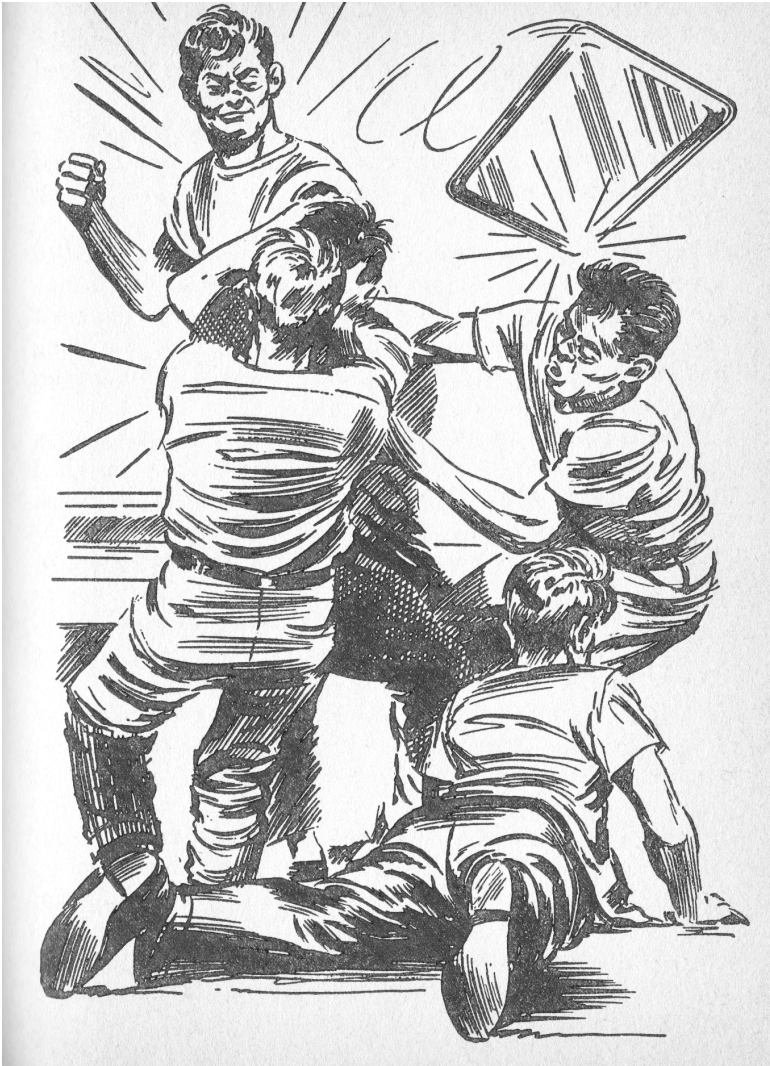
Along the walls many spacesuits were hanging on special hooks. Fallon quickly took his off and hung it up. He waited, eyeing the boys keenly as they put away their spacesuits.

“This way.” He pointed to a doorway. “My office is just off the main dome. We use the place for our colony mess hall.”

Fallon was a heavy-set, muscular man of medium height, with black curly hair and a hard, square jaw. He showed little emotion and spoke briskly, as though he was always in a hurry, but there was a friendly look about his eyes.

The three Space Explorers entered the main dome close behind the engineer. The room, with its high, domed ceiling, was huge.

Fallon picked his way past rows of plastic tables with long benches lined along the sides. On the way to his office, they passed the colony kitchen and the hospital, both opening on the main room.



Inside the little office, the engineer's manner suddenly changed to one of warm friendliness. He sighed with relief as he closed the door and seemed very tired.

"Sit down, boys," he said with a wave of his hand toward a row of chairs. "You can't imagine how happy I am to have you here."

"You knew we were coming?" asked Dig.

"I received a code message from Dr. Barry just before

our communications broke down.” He paused, then added slowly, “You’re the only ones on Ganymede I can trust completely!”

“What’s been happening here, sir?” Ken asked.

The man shook his head. “Almost from the first day, we’ve had one accident after another. It’s as though someone were trying to destroy this colony before it started!”

“We’ve reached the same conclusion,” Dig said. Quickly he gave the engineer an account of all that had happened, leaving out only the information about Billy Todd.

“That just about proves it to me,” Fallon said thoughtfully. “Now let me tell you what I need. This valley has to be mapped and—”

A loud crash from the main room interrupted him.

“Now what?” the engineer cried in exasperation. He leaped from his chair, reached the door in one great stride, and wrenched it open.

Jim, Dig, and Ken rushed out after him. They stopped in sudden amazement and stared at a scene of wild confusion.

An angry mob of men were battling each other in the great hall. Tables crumpled like paper beneath wrestling, tumbling bodies. Benches were picked up and wielded as clubs. Cries and curses filled the air.

Fallon quickly reached into his pocket and pulled out a stun-ray gun. Holding the weapon before him, he marched boldly into the thick of the fighting, shouting to be heard above the uproar.

“Stop it!” he roared. “Stop it or I’ll start blasting the lot of you!”

His voice, more than his threat, made the crowd pause. Slowly the fighters separated, forming two angry groups glaring at each other. Fallon stood calmly between them.

“What happened?” the engineer asked, turning to a tall, burly man at the head of one group. “Well, Briggs? You’re my foreman. What happened?”

"They won't obey me orders, Chief!"

"And ye're not going to make us, either!" cried a short, baldheaded man with a barrel-like chest and long powerful arms.

Briggs, the foreman, pointed to the man. "Daro and his gang, Chief, they're troublemakers."

"Troublemakers, is it?" Daro stepped forward angrily. "Aye, call us that! But we're not giving up our living quarters to move into the new dome!"

Fallon turned to his foreman. "That new dome is for the colonists arriving on the *S.S. Newton*. Why did you want these men to move in there?"

"It's not in good condition, Chief," Briggs answered. "And thought it would be better to have experienced spacemen living there instead of raw colonists."

"What's the matter with the new dome?"

"Matter?" Daro broke in. "The walls are thin. They'll brea through at any time! And when that happens, the air will blow out into space and we'll be sleeping in a vacuum! No, thank ye. We be not going to live in a death-trap!"

Fallon turned to Briggs. The big man shrugged. "There w no material to finish the walls up proper, Chief."

"He's a liar!" Daro snapped. "There's plenty of plastiseal the warehouse."

The crowd drew back to make a path for a workman to come through. He carried a long, heavy tank on his shoulder. Silent! He dropped it on the floor at Fallon's feet and returned to the group.

"There's enough of this stuff hidden behind old crates to build ten new domes!" Daro said.

"Why didn't you use it?" Fallon asked Briggs.

"I didn't know we had it, Chief!"

"Didn't know!" Daro sneered. "It was hidden on purpose, that's what! You did it! You wanted us to die when the dome blew out into space!"



## 9 The Valley of Hope

BRIGGS GLARED AT THE BALD-HEADED MAN, THEN turned to Fallon.

“If anybody hid the plastiseal tanks, I’d say Daro did it. He’s always looking for a chance to make trouble!”

Daro ignored the foreman. “What are ye going to do about it, Chief?” he asked, looking straight at the engineer.

Fallon thought for a moment, glancing about the great room.

“Briggs, put up cots along the walls in here. The new colonists will live here until the dome is finished properly.”

“Aye, aye, sir,” Briggs said. He turned to the men behind him. “Get to it, men.”

In small groups the men went toward the passageway leading to the warehouse.

Fallon looked at Daro. “Briggs is still foreman here. His orders apply to you, too.”

An angry expression came into the man’s face. “Aye, aye, sir!” he growled, then slowly moved away.

Fallon, joining the three Space Explorers in the doorway of his office, said in a low voice, “You see what I’m up against. Something like this happens every day!”

The boys did not reply. Fallon motioned toward the airlock entrance.

“We’ll go out,” he said. “I want to show you our valley.”

Putting on their spacesuits, the three boys and the engineer went through the airlock. Outside, they found the workers already strengthening the new dome. From the warehouse in the center of the curving row of buildings, a stream of men emerged carrying plastiseal tanks.

“Doesn’t look like you had any shortage of materials,” Dig remarked.

“No,” the engineer replied, his voice coming in softly over the radicom earphones

“Who was telling the truth?” Jim asked. “Daro... or your foreman, Briggs?”

“I don’t know. Daro is a tough, dangerous man. He and Briggs seem to hate each other.” The engineer turned his back on the warehouse and pointed toward the clearing away from the colony.

“There they are!” he said proudly.

The three great nuclatomizers stood in a row, solid and motionless. The boys approached them slowly, examining the massive machines. The sides, rising some thirty feet above the Space Explorers’ heads, were made of some kind of smooth black metal.

“Aren’t there any openings?” asked Ken.

“On the other side, in front,” Fallon replied. “And underneath there are scoopers which draw in dirt and rocks. The nuclear fluid is deep inside.”

They walked around the corner of one of the machines, then along one side, and stopped in front of it. It was almost a city block square.

Trailing wisps of vapor came from the circular openings of the first two machines. They lasted for a few seconds, then faded, and more billowed out.

“The cold on the outside makes the air visible,” Fallon explained. “The first two machines are producing oxygen, nitrogen, and a bit of carbon dioxide in a mixture similar to the atmosphere on Earth.”

There was no need for the engineer to tell the boys what the third nuclatomizer was making. A steady stream of water poured out of the opening, cascading to the ground, which greedily sucked in the liquid.

A swampy area had formed in front of the machine, and from there a trickling stream flowed toward the valley.

“The stream will grow larger as the ground soaks up the water,” Fallon said. He waved his hand toward the far end of the valley. “Someday we’ll build a lake way out

there!”

Softly, almost to himself, Ken said, “Will it work?”

The engineer heard him through the radicom and chuckled. “Look at the atmosmeter inside your helmet!”

“There's a positive reading!” Jim cried excitedly.

“The atmosphere is already building up!”

“But will it remain?” Ken asked.

“Yes, the way morning fog gathers in valleys and hollows. That's how our atmosphere will stay inside this valley.”

The three Space Explorers raised their eyes and looked into the distance. The tall mountains rose steeply upward in a great line on both sides. Only at the far end could they see the flat valley floor reaching to the horizon.

“This is the valley Captain Boyd Allen found for us,” Fallon told the boys. “It's perfect for our experiment. We'll be breathing pure air here long before the rest of Ganymede has an atmosphere.”

“The air will rise and pour over the mountains,” Dig said.

“Yes, but slowly.”

“It'll be like living in a pond with air instead of water,” Jim said, laughing.

“Yes. And we won't be able to leave the pond without our spacesuits... or let the air escape from this valley. Even a small leak somewhere in those mountains can be dangerous.”

They turned and walked back slowly. The engineer continued to talk.

“I need information about those mountains,” he said. “The Jupiter report indicated some weak places that would need building up. Now you'll have to find them again.”

“We'll do that,” Dig said. “We'll make a complete new survey of the valley.”

“Good. Get me information about minerals and other

natural resources in the valley. We'll need that, too."

"Aye, aye, sir," Dig said.

From the buildings ahead several figures came out and stared spaceward. The men working on the new dome stopped and gathered in groups. Fallon stared worriedly for a moment, then raised the volume of his radicom and called control.

"It's the *Space Ship Newton*, sir," the operator on duty told him. "Just got a report she's coming in for a landing."

"We'll stay out here and watch her land," Dig said.

"I've got to prepare for the colonists," Fallon told them. "I see you boys later."

The engineer entered one of the airlocks and shut the hatch behind him. Dig turned his radicom down to its lowest range. He could barely be heard as he spoke.

"We'll keep our eyes open. If anyone wants to harm Billy this might be his chance. There'll be a lot of confusion."

"Let's scatter and mix with the crowd. Then, when we spot the boy, we'll close in and stick near him."

"All right," Ken agreed.

The three Space Explorers separated, moving casually with the spaceworkers. Scattered bits of conversation came over Dig's earphones.

Several men were standing in a group near him and Dig overheard one of them saying, "I always thought these colonists were a crazy lot. Now I don't know. This valley is pretty nice."

"If they can really make an atmosphere," said another man.

A third one broke in. "This place is a lot better than Venus. My last job was in the swamps out there."

"I know what you mean," the first one said. "Sweat and heat and fevers! I don't ever want to see that planet again!"

In the black sky overhead, the fiery jet of the landing spaceship could be seen. Slow and clumsy, the big ship descended on a fiery tail. The crowd watched silently as the fins touched the ground and the rockets were cut.

Then they rushed toward the ship like a tidal wave and their rumbling cheer of welcome came over the earphones.

Hatches opened in the side of the spaceship and wire ladders were lowered. The spaceworkers came first, dropping their duffel bags to the ground.

Briggs was waiting for them. He called over the radicom.

“Report at the main dome for instructions!”

In single file, the men walked toward the dome and began to crowd through the airlocks.

Down the wire ladders came the passengers, strange figures in their spacesuits. Crew members helped the children down. The colonists gathered in small groups, holding their bundles of personal belongings, confused, and a little frightened at the strangeness of the new world.

“You're home,” someone called loudly over the radicom.

“Go into the main dome,” another voice said.

Some of the spaceworkers helped the colonists, carrying their bundles for them. Others picked up the children, clumsy their spacesuits, and carried them on their shoulders.

The mass moved slowly toward the airlocks.

Dig saw old Adam Svenson, carrying his bag of seeds under his arm. Martha and Billy Todd walked behind him. Dig move toward them. Ken and Jim closed in. Before they had reached the airlock, the three Space Explorers were walking beside Billy.

“Hi, Billy,” Dig called out.

The boy glanced at him. Through the glassteel spacehelmet Dig saw the flash of recognition on the boy's

face. Then, to the young Space Explorer's surprise, Billy smiled.

"Hello, Dig... and thanks."

The next instant they were pushing their way into the air lock. Jim and Ken stayed close. Inside, they put away the spacesuits and followed the crowd to the main dome.

Fallon was busy at the head of the line, where the colonist were checked in and assigned to working groups. Dig move closer to Billy.

"Why the thanks, Billy?"

The boy looked up at him. His sullen expression was gone.

"For not telling Captain Tungaard about... what I did."

Adam Svenson leaned toward Dig. "The boy told me and Martha about it," he said.

"I see."

"The boy was tricked," the old farmer continued. "Tricked by a dangerous man."

"That's a good reason why Billy should tell us who the man is," Dig said.

"But I don't know who he is!" Billy said. "I know what he looks like, but not his name or anything about him!"

"Didn't he tell you why he tricked you into almost wrecking the ship?"

"Not wreck it! Just slow it down so the next colony ship will get to Ganymede ahead of the *Newton*," Billy insisted. "That's all it was. He was coming on the next ship."

Dig put his hand on Billy's shoulder and looked into his eyes. "That man never expected you to reach this moon, Billy. He might have been a little careless in what he said to you. Think hard! Try to remember every word! Did he say *why* he's coming?"

Billy scratched his head, grimacing with the effort to recall the man's words.

"He just wanted to be first so he could claim for

himself some valuable land in this valley. Before any of the other colonists grabbed it.”

“Sounds like he gave Billy a real fish story,” Jim said.

“No, it doesn't!” Dig turned to the boy. “There's plenty of good land for all here. Did he say why he wanted that particular piece of land?”

“Sure. He said it had some kind of valuable mineral deposits.” Billy stared at the Space Explorer, whose face had suddenly turned white. “Did I say something to hurt your feelings, Dig?”

“No. No, Billy.” Dig turned away. “And thanks.”

“What's the matter, Dig?” Ken asked.

“How did this man know anything about mineral deposits before Rowan stole the report? Unless... unless he knew what was in my father's report on Jupiter?”

“Dig!” Jim cried angrily. “You don't believe... you *can't* believe that your father had anything to do with this!”

## 10 The Fire

DIG ALLEN LOOKED AT HIS TWO FRIENDS. A BLUSH turned his face from pale to a red that almost matched the color of his hair.

"I'm ashamed of myself," he said. "For a moment, just for a moment, my heart gave a sort of tight squeeze and I was scared. I thought Dad might have talked carelessly and let slip important information."

"Not Captain Allen!" Ken insisted.

"You know what I think?" Jim asked. "The plot against the colony started long before the report was stolen. Maybe as soon as it came to Space Research-when Rowan first read it."

Dig agreed. "The scheme to destroy the colony has been carefully planned. That would take time!"

The line of colonists was moving forward toward the table where Fallon checked off the names on his list.

Turning to Billy, Dig said, "You've been helpful, Billy. There's something else you can do for us."

"What?"

"The spaceship bringing the next group of colonists will be here soon. Will you point out the man who gave you the passport?"

"No!" the boy replied quickly. He looked down sullenly, refusing to face the red-headed Space Explorer.

"Why not?"

"I'm scared!"

"No one's going to hurt you, Billy. We'll stay with you..."

"I'm not scared for me!" Billy retorted proudly. "It's Tess and Jody! They're on Mars! In the orphanage."

"Your sister and brother?"

"The man said something... something would happen to them if I talked about him!"



“Why did you agree to do as he asked you to?” Jim said.

“Because I don't want them to grow up in an orphanage!” Billy cried angrily. “That's why I ran away from there. I lived in Spaceman's Roost and stole things and cheated and lied! I wanted to get money so that I could fix up a nice home and keep them with me.”

Billy was close to tears. “That's enough questions for now, eh?” old Svenson said. People around them were beginning to glance uneasily at Billy and the Space Explorers. Pulling Jim and Ken with him, Dig stepped back.

“Maybe he'll help us later,” he said. “We'll only make things worse by forcing him.”

His two friends agreed with him.

“I hope he changes his mind before that spaceship arrives,” Jim remarked.

The three boys waited until the Svensons reached the head of the line. Fallon quickly assigned the old couple to a group who planned to set up farms. But he scowled as he looked up after examining Billy Todd's record.

“I don't understand how the authorities on Mars ever permitted a boy your age to come here alone,” the engineer said.

Old Svenson spoke up. “Me and my wife Martha, sir, plan to adopt this boy.”

“I see,” said Fallon. “Well, in that case...”

“I'll look after him, sir,” Svenson promised. “He'll stay with me all the time. He'll be helping me plant my seeds all through this valley.”

“All right,” Fallon said kindly. “We'll treat him like one of your family.”

“Thank you, sir,” Martha Svenson said. She took Billy by the arm and led him away. “Come along. We've got to find our cots...”

The three boys left the main dome and, dressed once more in their spacesuits, took one of the parked jeeps.

Jim drove, speeding up as soon as they left the settlement behind.

"Where to?" he asked as he steered the jeep down a dirt road.

"We'll make a quick survey of the mountains," Dig said "Just to get some idea of the work we've got ahead of us."

"Aye, aye, sir!" Jim replied cheerfully. He stepped hard on the accelerator and the jeep shot ahead.

For almost a mile as they drove, the trickling stream ran beside the road, finally disappearing into the dry ground. Where the water had seeped into the surface, the gray soil had turned a deep, rich black.

"That looks like it would make good farmland," Ken said.

In the distance, they could see several tractors moving slowly. As they came closer, the boys saw the tractors were plowing up the hard ground.

Men followed the tractors, rolling a large drum of wire. They turned off the road and drove toward the group. Each tractor cut a deep gash in the ground. The men followed it, burying the wire in the trench.

Jim stopped the jeep and called over the radicom.

"What's the wire for?"

One of the men stopped working and looked up.

"To heat the ground so that we can grow crops," he replied. "The nuclatomizers are producing lots of extra energy. We'll turn it into electricity, then run it through the wires to warm up the ground."

Another man called out, "That way we won't have to depend on the heat from the Sun."

"Thanks for the information." Jim started the rockets again and drove back to the road.

Crossing the plain they passed several other groups of men and tractors. The settlement was far behind them now. They passed the last of the tractors, the men stopping their work to wave at the Space Explorers.

On either side, in the distance, as they drove on, the

towering mountains rose upward sheer and straight. A flat horizon lay ahead.

"The valley is about thirty miles wide," Dig said.

After almost an hour they saw far ahead the tops of the mountain peaks which had been hidden behind the horizon. Jim stopped the jeep and looked back. ,

"We must be somewhere about the middle of the valley," he said.

"How far did we drive?" asked Ken.

Jim glanced at the speedometer. "About thirty-five miles."

"Well, that gives us a close idea of how long the valley is," Dig said. "Seventy or eighty miles."

"Shall we go back?" The Sun had gone down over the mountains. A gloom had settled over the valley.

"Go back."

Jim turned the jeep around and raced over the faint tracks of their trip out. As they approached the colony, Jupiter began to rise above the mountains. The planet appeared huge, covering a large part of the sky and casting a bright light over the valley.

"It looks like Ganymede is a world of continuous daylight," Jim said.

A voice suddenly broke in on the radicom.

"That's right, young fellow."

Startled, Jim looked about him. One of the men working behind a tractor they were passing waved his hand.

"It's me talking to ye," the man called. "Overheard ye on my spacehelmet radio communicator. Them things don't give a person much privacy."

"I guess they don't," Jim laughed. "Glad you heard me, though. Is the light going to help the farmers?"

"Sure will. Having lots of light will make up some for it being weak."

"What happens when Ganymede swings around to the

other side of Jupiter?" Ken asked. "You won't be getting any direct sunlight."

"Reckon that's going to be our night," another voice joined in. "We'll be on the night side of Jupiter about two out of every seven Earth-days."

A third voice came in. "We'll fix some way of getting light for our crops to grow on!"

"One good thing about radicom," Dig grinned. "Everybody can join in the conversation."

"Sure," the first man said. "Don't get lonely that way!"

An excited voice suddenly came over the earphones.

"Fire! All men report to colony!"

It was followed by a confused uproar of shouts.

"Who's that?"

"Somebody must be joking."

"No! That's no joke!" Dig raised the volume of his radicom to its full power. "They're calling for help. Step on it, Jim!"

Jim raced the jeep across the fields toward the colony. Behind them the tractors turned and began to lumber over the freshly plowed ground. The men jumped on the machines, clinging desperately to the sides as the tractors lurched forward at full speed.

"The fire is in the warehouse," Dig called, listening to every sound over his radicom.

Jim swerved the jeep around the nuclatomizers and brought it to a sharp halt in front of the warehouse airlock. Dig and Ken had leaped out even before the vehicle had come to a stop.

They ran for the airlock, tearing open the emergency kits hanging from their spacebelts. Dig, in the lead, opened the airlock hatch.

Thick smoke billowed out, rolling heavily along the ground. Fire-extinguishing cartridges in hand, the three boys plunged into the airlock.

Furiously impatient, they forced the inner hatch open

the instant the outer one was closed.

The next moment they were inside the warehouse. A sheet of raging flames, fed by the pure air being pumped in through the ventilators, was sweeping through the huge room.

## 11 Billy Accused

“WE... WE CAN'T STOP IT!” JIM CRIED IN DESPAIR.

Dig ignored the frantic cry and advanced toward the fire consuming the rows of crates and plastic-covered bales.

“Jim, stay on my right! Ken, on my left! Hurry!”

Hurling cartridges of flame-smothering carbon dioxide ahead of them, the three boys moved slowly forward. The cartridges exploded as they hit the floor. Thick, foamy clouds of chemicals swirled up and crawled like living things along the floor.

For the moment the spreading flames were halted. But their supply of cartridges had been used up and Dig fell back a step.

“We've got to get more!”

“I'll go!” Ken called out.

The boy turned toward the airlock, but even as he reached it the hatch was suddenly thrown open. A figure in a spacesuit staggered in, carrying a large fire extinguisher on his back. Dangling from his spacebelt was an extra supply of cartridges.

“Don't stand there, gents! Give us a hand!” a familiar voice shouted.

“It's Jocko!” Ken cried, leaping to unhook the box of cartridges from the space sailor's belt.

“Give them to me!” Dig called. “Then help Jocko!”

“Aye, aye!” Ken replied joyfully, tossing the box to his friend. They attacked the flames vigorously. From the other side of the warehouse they heard Fallon's voice giving orders to his men.

More men were pouring in through the connecting passageways. Presently the fire was out. Only a few heaps of rubbish remained smoldering. The air was thick with smoke.

“The ventilating system will clear the atmosphere in a

couple of minutes,” Fallon called out over the radicom. “You can take off your spacehelmets.”

The engineer was standing at the edge of the burned area, surveying the damage. The men were slowly taking off their helmets as they gathered about the engineer.

“It looks bad, Chief,” the bald-headed Daro said, taking off his helmet.

Fallon nodded. “Our food supplies...”

“Don't look like there's much left,” one of the men said.

Another one turned to the engineer. “What are we going to do, Chief?”

“Clean up the mess, first,” Fallon snapped. He looked about him. “Where's Briggs?”

No one seemed to know. Fallon turned to Daro.

“You take charge of this,” he ordered. “Clean up and make a list of the supplies we were able to save.”

Daro nodded, his face grim. He called several of the men together.

“Let's get started,” he ordered.

Fallon asked one of the men standing beside him, “Find Briggs for me.”

“Aye, Chief,” the man replied, turning to go.

At that moment, there was an excited murmur from the rear of the crowd.

“Here's Briggs!”

“Aye, I'm here!” The bull voice of the big foreman rose above the sound of the crowd. Briggs pushed his way through the men. “And I've got the one who set fire to the warehouse!”

He was dragging Billy Todd by the arm. As he approached Fallon, he pushed the boy brutally forward. Billy stumbled and fell at the engineer's feet.

“Caught him right in the act!” Briggs shouted. “It's him that's responsible if we starve!”

An angry roar burst from the crowd. Several men stepped toward the boy, their fists raised.

Dig leaped forward and stood over Billy.

"Don't any of you touch the boy!" he shouted, glaring at the men until they drew back.

Jim and Ken helped Billy to his feet, then stood at each side of him protectively.

Fallon looked at the foreman. "You saw the boy start the fire?"

"Aye," Briggs replied.

"Why didn't you put it out before it got going?" Dig asked.

The question startled the man.

"If he had just started the fire," Dig continued, "it should have been easy to put it out. Why didn't you?"

"You keep out of this," Briggs snarled at the red-headed boy.

"Answer the question!" Fallon snapped.

"Well, the fire was already all over the place," Briggs said, looking down at his feet.

"Then you did *not* see the boy start the fire!"

"Well, I as good as saw him! There was no one else in here!"

"That's a lie!" Billy cried. "Uncle Adam—I mean Mr. Svenson—was with me!"

"All right! The two of them started the fire!" Briggs pointed a thick finger at Billy. "Him and the old man!"

"We didn't! Please believe me! We didn't!" Billy pleaded, looking up at the engineer.

"What did happen, Billy?" the engineer asked kindly. "What were you and Svenson doing here?"

"We came here to find some tools. We were going to plant seeds and needed something to dig with."

"Was anyone in here at the time?"



"We didn't see anyone. There was smoke coming from behind some piles of boxes. Mr. Svenson told me to go give the alarm... and he rushed in to try to put the fire out."

"So you ran to give the alarm?" Fallon asked. "But you never gave it."

"I couldn't, sir! *He* grabbed me and wouldn't let me go!" Billy pointed his finger at Briggs.

"I wasn't going to let him get away, Chief! He's the one started the fire!"

"He wouldn't let me ring the alarm, either," Billy said. "That's the truth, sir. You can ask Mr. Svenson."

Fallon looked about. "Where's Svenson?"

"Not here," Dig said. "Otherwise he'd be with Billy."

Fear suddenly shuck Billy. He cried, "Find Uncle Adam! Something's happened to him!" He raced away.

"Come on, you men!" Daro suddenly appeared. "Everybody! Scatter through the place and find the old man!"

"Aye," the men shouted.

Shaking his head, Fallon glanced at the Space Explorers.

"It's a wonder we get any work done here," he said bitterly. "Our food supply's almost gone, and another shipload of passengers is on the way."

"We'll give you all the food we can spare," Captain Tungaard said, moving up to the engineer.

"Aye, skipper," several of his crewmen shouted, forming group around the bearded spaceman. "We can live on short rations!"

"I wanted to thank you for turning your men out to help us with the fire," Fallon said. "I'll add my thanks for any food you and your crew can spare us, Captain."

"Thanks be not needed, Mr. Fallon," the captain said. He turned to Jocko. "Well, what be ye waiting for? Take the men and start unloading!"

“Right, skipper. The lighter the load, the faster we’ll get back to Mars!”

“Aye, now step lively!”

The men hurried away. Captain Tungaard shook hands with the engineer. “We’ll be blasting off as soon as we’ve brought the food landside!”

“Thank you, Captain.”

“We’ll be seeing ye next trip, lads.” The spaceman waved a hand at the Space Explorers.

He was gone the next instant, shuffling quickly in the strange way of spacemen when they feel the unfamiliar pull of gravity on their bodies.

“Now, you, Briggs,” the engineer said, facing the big foreman. “You failed completely to do your job. You should have been helping Svenson or turning in the alarm. And I don’t happen to believe your story. You’re fired.”

The big man shrugged his powerful shoulders. “All right, you’re the boss. You want to fire me, go ahead.”

He threw a hate-filled glance at the three Space Explorers, then walked away. They stared at the man as he disappeared into one of the connecting passages.

“He knows more than he’s told us,” Ken remarked.

“He does, but we can’t prove anything against him,” said Fallon.

“Can’t prove anything except stupidity,” Jim added.

“He’s not a stupid man,” the engineer said. “He was appointed foreman on Mars when the workmen were first selected. And he got the job because he passed the examination for foreman!”

“There are parts of his story which don’t fit,” said Dig.

“I noticed that,” the engineer agreed. “Sounded like he had to make it up in a hurry.” Fallon glanced at Dig. “You think he started the fire?”

“We can’t prove it, sir. But that’s what I think.”

“Svenson!” a voice called. “I’ve found Svenson!”

Men came running from every side, forming a tight circle, and Billy, who had joined in the search, dashed toward them.

But Daro stepped out as the boy approached. With a sweep of his long, powerful arms, the bald-headed man picked Billy off his feet.

“Let me go!” Billy screamed and kicked furiously,

“Trust me, lad, trust me,” the man said gently.

Fallon and the Space Explorers rushed past Daro and broke through the crowd.

Old Svenson was lying on his back, his eyes closed, the bag of seeds clutched in his hands. His face was white, but he was breathing.

“I found him lying on his face, wedged between a couple of bales,” a man said. “That’s why I couldn’t see him at first.”

“It saved his life,” another one pointed out. “Getting down his face protected by the bales—that’s what saved him.”

Old Svenson opened his eyes before the doctor came with the stretcher. He looked about, frightened.

Daro pushed Billy gently toward the old farmer. A smile came to the old man’s face.

Silently he held out his bag of seeds for Billy to take. Then his strength collapsed and the old farmer fainted.

Billy held the seeds close as he followed the stretcher to the colony hospital. As he walked, the Space Explorers fell in beside him and Dig gently placed a hand on the boy’s shoulder. Billy looked up and bravely blinked back his tears.

## 12 End of a Dream

THE DOOR OF THE HOSPITAL WAS CLOSED. OUTSIDE, a crowd of anxious, somber-faced people waited in silence.

They opened a path to let Martha Svenson through, then closed their ranks again behind her. The old woman came up to Billy Todd and patted his head gently.

"They told me what happened," she said.

She walked to a bench near the hospital door and sat down. No one spoke. After a while, Billy took his place beside her.

The door of the hospital remained closed. A long time passed. Then Billy took the old woman's hand without looking at her. They waited, sitting quietly, not moving, not speaking.

Daro came out of the passageway carrying a clip-board in his hand. He caught Fallon's eye and signaled to him. The engineer pointed to his office and Daro nodded.

Fallon turned to Dig and whispered) "Come with me. Daro has a report on the fire."

The three Space Explorers slipped away from the crowd and followed the engineer to his office.

"Well?" Fallon asked as soon as he closed the door. "What's the damage?"

"Plenty," Daro replied, glancing at his notes. "We've got almost two hundred people in the colony. We can feed about fifty for a week!"

"Another hundred will arrive in a few days," Fallon said glumly.

"We have some food on the *Starover*," Jim suggested. "Last of emergency rations."

"Enough to feed two hundred people... three hundred, soon?"

Jim shook his head.

"We go on quarter rations for the men," Fallon said.

“Half rations for the women and full rations for the children.”

“Even that won't give us much of a chance,” Daro said. “It be two weeks before the *Newton* can return with supplies.”

Fallon thought for a moment. “I'll send a call to Space Research. We'll be all right if a ship is sent immediately.”

He took the clip-board from Daro, studied it for a moment” then pressed a button on his desk communications panel. He waited, but no sound came from the speaker. Impatiently he pressed the button again.

An electrical crackle broke in on the loudspeaker, then an angry voice.

“What d'you want?”

“This is Fallon speaking. Tape this message and broadcast it to Space Research on asteroid Eros.”

“What with?” the man asked.

“What do you mean by that?” Fallon snapped angrily.

“I mean I've got nothing here to tape with... and nothing by which to broadcast a message.”

“This is an emergency!” Fallon roared. “We've got to get through!”

“Look Chief I know you've got an emergency! I've got one, too!” the communications man said, annoyed. “I'm doing the best I can. This intercom system I patched together with odd pieces of wire, bubble gum, and a basketful of luck!”

“Patched together?” Fallon repeated, puzzled. “What in space are you talking about?”

“The communications dome! Everything in here has been smashed!”

“Smashed?” Fallon appeared to be stunned by the words.

“Come and see for yourself!”

“Everything?”

“Everything!”

"I'll be right there!"

Followed by Daro and the three Space Explorers, the engineer dashed out of the door. They hurried past the silent crowd standing before the hospital door.

"We don't have to go outside," Fallon said. "The communications dome is at the end of the row of buildings. We'll use the connecting passages."

Daro whispered to Dig as they passed into the next dome.

"He's worried, lad. The controls for everything here be in the communications dome."

"Even for the nuclatomizers?"

"Aye, them, too!"

The small dome housing all the colony's controls was a shambles. They stopped in the doorway and stared in amazement. Standing in the midst of the wreckage was a slim, angry-faced young man.

"What happened here?"

"Somebody came in with a hammer and wrecked the place," he said sweeping his hand around the room. Then he added, "A hammer and maybe a couple of axes, too."

Fallon walked into the room, kicking aside tangles of wire and smashed amplifiers. Broken glass lay everywhere.

The communications man picked up the base of a broken tube. "Everything! Every tube, every condenser, every tuner and amplifier!" His voice was bitter. He pointed to a door hanging on loose hinges. "All the spare parts, too. I had them locked up in the closet."

"When did this happen?"

"During the fire. I went to help put it out. When I came back a little while ago," the man gestured helplessly, "the place was like this."

"Can it be repaired?" Jim Barry asked.

"I'm no magician," the man shook his head. "We need completely new equipment."

Ken walked through the room, examining the wreckage.

"Whoever did this knew what he was doing," the boy said. "He wanted to silence this colony."

Daro stood in the doorway, his eyes narrow slits of anger.

"It was Briggs!" he said. "I never did like that spacehound!"

"Briggs was holding Billy Todd," Dig reminded the man.

"Aye, that's so," the stocky worker admitted reluctantly.

Fallon was silent. He dreaded to ask the next question. Now he could postpone the matter no longer. "What about the nuclatomizer controls?"

"They didn't touch them," the communications man replied. "The controls are all right. Working perfectly."

"Let's get out of here!" the engineer said, relieved at the news.

Head bent low, Fallon walked out of the room. The others straggled after him. His strength seemed to have suddenly left him.

Dig said to Jim in a low voice, "They hit us twice this time. Destroyed the food and smashed the colony's means of calling for help."

Daro overheard him. "Who hit us, lad?"

Dig glanced at him. There was something solidly honest about the squat, bald-headed man. Ugly he was, and as rough as all spaceworkers, but there was no suggestion of treachery in him.

"There's a plot to destroy this colony," Dig said on an impulse. If the man was one of the gang, he already knew it. But if he was not, perhaps they would gain a powerful ally.

"So that's it, eh?" Daro said. He frowned, but said nothing more.

When they reached Fallon's office, Daro looked at the

engineer grimly.

“Look, Chief. You fired Briggs, didn't you?”

Fallon nodded.

“Well, then you need a new foreman!” Daro hesitated. “What about giving me the job?”

The engineer studied the man closely. “Well, as a matter of fact I was going to offer you the job, Daro. You've got it now.”

“Aye, Chief! I'll make things hum!” Daro tossed ~is clipboard on the desk. “We've got work to do, starting now.

“What are you planning?”

“The people outside, waiting to hear how the old man is,” Daro said, “it's not good for them to just stand around doing nothing.”

“Work will keep their minds off their worries,” Fallon agreed. “Go ahead, Daro.”

The bald-headed man grinned, waved a casual salute with his powerful hairy hand and left the office. The room became quiet as the engineer bent over a pad on his desk and wrote a brief report of the fire.

When he had finished, he pushed the pad aside with a helpless gesture. “A complete job they did, this time,” he said wearily. “And no way to call for help.”

“We'll get me message through for you;” said Dig suddenly

“How?”

“The *Starover*

“Hey!” Jim leaped to his feet. “What if they wrecked *our* communications equipment, too?”

Dig picked up Fallon's report and handed it to Jim. “Get over to the ship and see. If they did, there's nothing we can do about it now. If they didn't, send this to Space Research on Eros.”

“Aye, aye!” Jim snatched the report and headed for the door.



Ken called after his brother. "Make sure the ship is locked when you leave."

"Aye, will do!"

"Well, I've got to figure out how we're going to feed the people on the food we've got left," Fallon said, taking up Daro's clip-board.

Dig and Ken left the office and walked slowly toward the colonists at the hospital door. Most of them were gone, but a few still hovered anxiously near Billy and Mrs. Svenson.

"Any news?" Dig asked a woman in a low voice.

She shook her head silently.

The two boys found a place near the door. Leaning against the wall, they settled down to wait. There was still no news as Jim joined them.

"Sent the message," he informed them in a whisper. "Everything on board the ship was all right."

When the hospital door was finally opened and Dr. Danvers stepped out, it caught them by surprise. The doctor shut the door quietly, then leaned back wearily.

One look at the bleak expression on his face was enough. The doctor turned to Mrs. Svenson and shook his head.

"I did everything possible," he said in a tired voice. "You can go in. He wants to see you."

"Then he's..."

The doctor again shook his head. "He can't last long, Mrs. Svenson."

There was no change in the expression on the old woman's face as she walked into the hospital room. But once inside, she smiled gently. Billy walked beside her.

The others, at a nod from the doctor, followed her in. They remained at the back of the room watching silently.

Adam Svenson raised his thin hand and smiled.

"Is Billy all right?" he asked.

"He's all right, Adam," the woman replied. "How be

you feeling?"

"Not good, not good," the old farmer said. He turned his head slowly and looked at Billy Todd. "Martha and I... we were hoping to adopt you," he said. "Now you'll have to look after Martha."

"I'll take care of Aunt Martha," Billy promised.

"Martha and me... we wanted to bring Jody and Tess here..." Svenson said in a low, weak voice. "Wanted to give... them home with... us..."

"We'll do that, Adam. We will," said Mrs. Svenson gently.

The old farmer saw his bag of seeds in Billy's hands. He reached out and touched it with his thin hand. "I was dreaming... a dream..." he said. "Dreaming this valley... was green... green with trees and grass..."

"I'll plant the seeds," Billy said.

"I know... I know..."

The old man lay back on the pillow quietly and closed his eyes. The colonists began to slip out of the room. The three young Space Explorers were the last to leave.

They stopped at the door. The room was still.

Old Mrs. Svenson sat holding the old farmer's thin hand. Billy was sobbing softly, his face pressed against the blanket.

## 13 The New Settlers

OLD ADAM SVENSON WAS BURIED ON A SMALL HILL which thereafter bore his name.

Daro had carved a marker out of green plastic. The colonists watched in silence as he dug it into the ground. Afterward, the people trudged back from the hill to the settlement. Over them towered the huge, forbidding mountains.

As soon as they had returned, Fallon called the Space Explorers to his office. He was worried as he spoke to the boys.

"The domes are almost finished," he said. "In a day or so, the *S.S. Kepler* will arrive with more colonists." He paused, thrusting his hands into his pockets. "I must have the valley surveyed."

"We'll start on it at once," Dig said.

"I want to plan out the farm areas," the engineer explained, "and set up factories near sources of mineral deposits."

"There's something worrying me, sir," Dig began.

"I know. The boy—Billy Todd."

"Aye, sir. I'm afraid some harm might come..."

"You get started on your job," Fallon said briskly. "I'll have Daro watch over that boy. And I'll keep an eye on him, too."

"Please do that, sir," Dig said warmly.

"Pick up what supplies you need."

"Aye, aye, sir!"

The three boys found Daro waiting for them when they came out of the dome.

Daro called a greeting, adding, "The chief told me you might be needing help."

"We do," Dig said. "A rocket-jeep..."

Daro waved his hand toward the row of parked cars.

“A plastic dome tent...”

“Got some of them in the warehouse.”

“And containers for rock and soil samples.”

“Aye, I'll go get them.”

Daro hurried away toward the warehouse. Dig lowered the volume on his radicom and spoke in a low tone.

“I'd like to see Billy before we go,” he said.

“We can look him up before Daro gets back,” Jim suggested.

The three boys went back into the domes. They found Mrs. Svenson in the little apartment that had been assigned to her.

“Billy? He's gone planting,” she said with a sad smile. “My, but that boy is just like Adam when it comes to those seeds.

“That's good. Maybe this valley will be green some day,” Ken said.

“It will... it will,” the woman said confidently.

Daro had a jeep loaded and ready for them when the boys came out.

“Keep an eye on Billy Todd,” Jim said to the foreman.

“Aye, that I will,” Daro replied.

Jim took the driver's seat and started the motor. Ken and Dig squeezed in beside him.

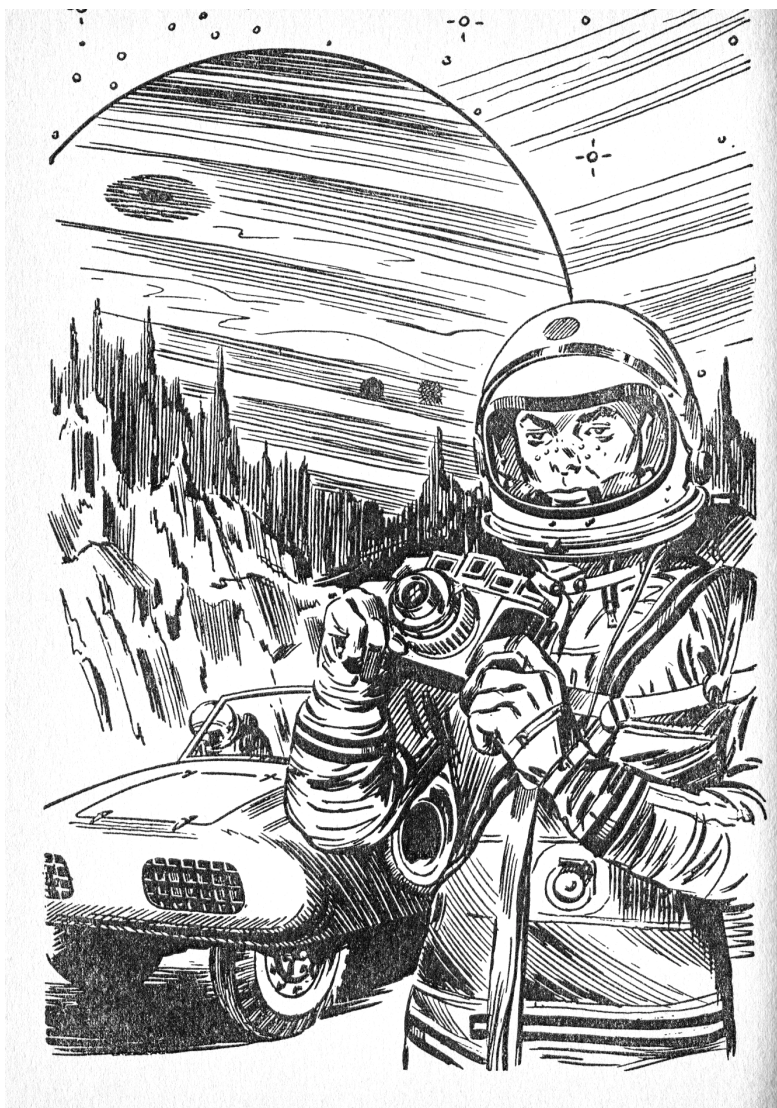
“Let's go!”

“Which way?”

“We're going to make a trip around the valley, following the base of the mountains,” Dig announced. “Use Svenson's Hill as our starting point.”

“Aye, aye!” Jim steered the speedy little car around the row of domes and raced away toward the mountains.

As they approached the hill, Jim slowed the jeep down. A figure dressed in a spacesuit stood on top of the hill, watching them.



"Look up there!" Jim pointed.

"I think it's Billy," Dig said. Raising the volume of his radicom, he called, "Ahoy, Billy! This is Dig Allen calling."

"I hear you," Billy's voice came over the earphones.

"What are you doing?"

"Planting seed," the boy replied. "I'm going to cover

this whole hill. Where are you going?”

“To survey around the valley. We’ll be back in about a day.”

“I’ll see you then.”

The boy waved his hand as they sped by the base of the hill. Soon the domes of the colony and the hill itself were out of sight behind them. They had traveled on for several more miles when Dig called a halt.

“We’ll stop here,” the redhead said.

“Why?” Jim asked. “We can be on the other side of the valley in a couple of hours.”

“What did we come for? A joy ride? Get to work!”

Jim stopped the jeep and climbed out. “What do you want me to do?”

“Get busy collecting soil samples.”

“Aye, aye, sir.” Jim took several containers from the jeep and moved away.

Ken had a tool kit open and was studying the rocky ground closer to the steep walls of the mountain range.

“I’ll get the rock samples,” he said.

“Fine. I’m going to photograph the mountains.”

The trio worked rapidly until they had finished their tasks. Then they drove on, keeping close to the foot of the mountains. Every few miles they stopped, and while Dig photographed the towering, jagged peaks, the other two boys collected soil and rock samples.

The sun was sinking behind the mountains when they reached the other end of the valley. A twilight darkness was spreading over the valley.

Ken took the plastic dome tent and spread it on the ground. A portable air conditioner began to pump it into shape. Within a few minutes, a small tent with a round dome top stood before the trio.

“I’m tired,” Jim complained.

Dig brought out their rations and the three boys crawled inside the tent, sealing the opening behind them.

They took off their spacehelmets and sprawled on the ground. Dig distributed an emergency food bar to each.

"Save some of that," he said. "Or you'll go without breakfast." He tossed a plastube of chocomilk to his two companions. "And that, too."

Jim grumbled and began to munch on his bar, taking an occasional sip from the plastube.

"You know," he said as he chewed his food, "this end of the valley seems lower than the other. I noticed we were going downhill most of the time."

"I thought so," Dig agreed. "The air here is thicker than at the colony."

"The way I see it," Ken said, biting into his bar, "they set up the nuclatomizers at the higher end so that the water would flow down through the valley to this end. This is where the lake is going to be."

"Air flows to lower ground, too," Jim said.

Dig stretched out on the ground. "You know what I think?"

"What?" asked Jim.

"We ought to get some sleep. There's a hard day ahead."

"Well, if you want to joke," Jim said, "how's this?"

He squirted a stream of chocomilk at Dig, who rolled over quickly to escape the sticky liquid.

"What a waste of a good breakfast," said the red-haired boy laughing.

"Huh?" Jim shook the plastube near his ear. "Oh, my gosh!" He looked at his friend.

Dig pretended to be fast asleep, an innocent smile on his lips.

Jupiter had moved halfway across the sky when the boys woke up. They ate quickly and, after putting on their spacehelmets, collapsed the tent.

While Ken loaded the equipment in the jeep, Jim gathered samples. Dig photographed the mountains and then took several pictures of the valley.

They followed the same routine on their return journey, stopping every few miles to gather samples and take photographs.

Jim sighed with relief when he spotted the distant domes of the settlement.

“A good job, even if I have to praise myself,” he said.

“What is?” Ken asked.

“Surveying this valley.”

Ken laughed. “We’ve got a couple of days’ work ahead testing all the samples we picked up.”

Jim groaned. ‘I forgot.”

They drove along in silence until they reached a group of men working behind a tractor. One spacesuited figure left the others and started to run across the fields toward them.

“Somebody wants to see us in a hurry,” Jim remarked.

“It looks like Billy’s spacesuit,” Ken said. “What’s he doing way out here?”

“Planting seeds and waiting for you,” Billy’s voice came over the radicom.

“You better watch the volume of your radicom,” Dig chuckled. “Or you won’t have any privacy here.”

Jim stopped the jeep and they waited until Billy had joined them.

“I’ve made up my mind,” Billy said quickly as he reached the jeep.

“To what?” asked Dig.

“The man on Mars... the one who got me to... to... you know what!”

“You’re not afraid any more?”

Billy hesitated, then said in a strained voice, “Sure, I’m afraid! But... but I’m going to point him out to you



anyway!"

They didn't ask the boy why he had changed his mind. They saw the way he held the bag of seeds close to his side. They remembered old Adam Svenson.

"Hop on, Billy," Dig said quietly. "When is the ship expected to land?"

Jim pointed to the sky. Against the black of space, they could see the bright jet-flames of braking rockets.

"She's coming in now," Jim said, and he stepped on the accelerator. The rocket-jeep seemed to leap ahead.

The *S.S. Kepler* was just touching ground as they drove into the settlement. Jim brought the jeep to a quick stop before the main dome. "We'll watch as the passengers come into the office," he said.

The boys took their places inside Fallon's office just as the colonists started coming in. One by one, they passed by.

Billy, wide-eyed and fearful, stared intently at each face as the settlers reached the head of the table where Fallon questioned them.

"In case you don't recognize the man's face, maybe his voice will sound familiar," Dig suggested.

Billy nodded, keeping his eyes fixed intently on the line of faces.

"Name?" Fallon asked a man reaching the front of the line.

"Jason Lambert, wife Mary, and two children, Steve and June."

"That checks. What work do you do?"

"Chemist. Volunteered to work in medicine and drugs."

"That's right," Fallon said. "Report to the hospital. Next!"

"Andrew Corey." This from a handsome young man moving up the line. He had a quick, friendly manner. "No family. I'm a geologist."

"You volunteered to from a group to explore the valley."

"Yes, sir," Corey said.

"I'll have a talk with you about yom duties later, Corey," Fallon said. "Next!"

Corey stepped away from the table and looked about him. Seeing the Space Explorers, he walked up to them.

"My name's Corey," he announced, smiling. "Andy Corey. I used to dream about becoming a Space Explorer." He looked at the boys and noticed their youthful appearance. "You're young to be in the Corps."

"It isn't age that counts," Jim replied, annoyed.

"It's ability, I know," Corey said. "Looking for someone? Friend or relative?"

"Just someone..." Billy said sullenly. He glanced at Dig and shook his head. "I don't see him, Dig."

"That's impossible!" Jim insisted. "All the new settlers are here!"

"*He* isn't!" Billy cried. "I'm sure!"

"If I could be of help," Corey offered. "Maybe if you'll tell me his name or what he looks like... I know all the colonists."

"Thanks, Corey," Dig said. "The man we're looking for isn't here."

"Too bad," Corey said, smiling.

He walked away and Jim stared after him.

"Does his voice sound familiar, Billy?"

"No."

"Funny," Jim said, brushing his hair back. "I seem to have heard it before somewhere."

## 14 The Vanishing Air

THE THREE SPACE EXPLORERS AND BILLY TODD remained in the doorway of Fallon's office until the last of the new arrivals had been checked in.

Their gloom increased as the main dome emptied. Finally when only Fallon and some of his clerks remained, poring over the records spread out on the table, Billy shuddered. He turned to the silent Space Explorers.

"I'm scared," the little boy said.

"I am, too," Dig confessed.

"It's not knowing," Billy continued. "I'm afraid of something, but I don't know what it is."

"You do know, Billy. So do we," Ken said kindly. "The colony is in danger. Everyone here is in danger."

"We all know the enemy is going to hit us again," Dig said. "But who is the enemy? What's he going to do next?"

"We're helpless," Jim said.

"No, we're not!" Dig retorted. "We'll do all we can--"

Jim shrugged. "Sure, but what can we do?"

"Watch and wait," Dig said. "And do our job in the meantime."

Fallon left the table and walked over to them. He was smiling as he greeted the boys.

"I saw you boys return from your trip," he said. "Couldn't say hello until I took care of the new settlers. How was it?"

"Got all the material we need to make out a first report," Dig said.

"Some good men came in on this ship. Got a geologist who can help you a lot."

"We met him. Corey, isn't it?" Jim asked.

"Yes," Fallon said. "I'd like to put him to work right away. When can you have a picto-map of the valley

ready?"

"In a few hours," Dig said.

"Good. See you later." Fallon returned to his clerks.

"Let's get started," Ken suggested. He patted Billy on the shoulder. "We'll be on board the *Starover*. Come over and visit us, Billy."

"All right. I'm going to see if Aunt Martha needs me."

Billy walked away slowly. He held the bag of seeds close, as if it had become a part of him.

"He wanted to help us," Ken said, looking after the boy. "He's disappointed."

"So am I," Jim said, as they walked toward the airlock.

Dig took over the study cabin on the *Starover* to work on the picto-map. The photographs had been developed inside the camera. The red-headed boy spread them out across a worktable.

He began to mount them on a clear plastic sheet, joining the edges carefully. When he was finished, he had a complete picture of the valley as it might have been seen by a person standing in the center of the area. The mountains formed a complete border around the egg-shaped valley.

He made several copies of the picto-map, then called his two friends in.

"Hey, Jim! Ken!"

When they joined him, Dig pointed to his work proudly.

"How's that?"

"Good job," Jim said, grinning. "Now come and see what we've been doing."

The control cabin had been turned into a laboratory, Dig noted at a glance. A plastic board was laid over the astronavigation table and on it were spread neat rows of rock and soil samples. Test tubes, retorts, and chemicals were arranged on a small folding table. Everything was carefully labeled and numbered.

Jim took one of the copies of the picto-map and spread it against the bulkhead taping it to the metal With plastic.

"We'll locate the numbers of our samples on the map," Jim said. "In that way, we'll know exactly where each sample comes from."

Over the communicator a voice called to them.

"Ahoy, *Starover*." It was Fallon's voice.

Ken slipped the switch on the instrument panel.

"Come aboard, sir."

"That's what I was meaning to do."

A few minutes later, they heard the click and scrape of spaceboots on the wall cleats as Fallon climbed up to the control cabin.

The engineer was pleased when he saw the careful way the Space Explorers had gone about their job. His praise made Dig blush so that his freckles seemed to pop right off his nose. Ken shuffled his feet uneasily and looked away. But Jim stuck out his chest and beamed happily.

"Oh, it was nothing, sir!" the oldest boy said. "We always do our work well."

Fallon glanced at him, an amused twinkle in his eyes.

"You're being much too modest, Jim," he said.

"The picto-map is ready for you, sir," Dig reported.

"That's what I came for," the engineer said. He took a cop and rolled it up carefully. "Corey is going to be one of our best men. Waiting for the map, he went to work on our communications equipment."

"I thought he was a geologist," Ken said.

"He is. But he's a good enough electronics man to be a engineer," Fallon told them. "He repaired enough parts to set up a short-range communications system. We can cover the valley now."

"That's more than your communications officer could do," Ken said.

"It is," the engineer agreed. "And Corey is being helpful another way." He chuckled. "You know there's

been a lot of grumbling about the food shortage."

"I know," Dig said.

"Not by the colonists," Fallon was quick to say.

"They're taking the hardship surprisingly well. It's the spaceworkers."

"They're a rough, hard-working lot," Jim put in.

"Yes, and Corey's taken the worst of them into his work group. Briggs is one of them."

"Why in space did he do that?"

"To get them out of the camp and off by themselves. Core suggested we keep them away from the others."

"Not a bad idea," Jim said.

"I thought it was a *good* idea," Fallon said.

"Now *you're* being too modest, sir," Jim said, grinning.

They all laughed at that.

"I had it coming," Fallon admitted as he prepared to leave.

The Space Explorers could see from his cheerful mood that the work on the colony was going well.

When he had gone, Jim said, "Maybe we won't have any more trouble on Ganymede!"

"Maybe," Dig said. "But I wouldn't count on it!"

"Let's get back to work," Ken said quietly, gesturing toward the samples. "We ought to do the soil samples first so Fallon can start laying out the farm areas."

The three boys worked the rest of the day. When Jupiter sank behind the mountains and the Sun rose on the opposite side, Jim looked out of the viewport. He was chuckling to himself as he looked at the valley spread out under them in the slanting rays of the Sun.

"What's funny?" Dig asked.

"This is the only world which has two days every day!"

"Two days?" asked Ken, looking up from a test tube.

“A Jupiter day and a regular Sun day!”

“I guess that's so.” Ken smiled. “But when do people sleep?”

“It'll be worked out someday when the settlers get used to this,” Jim said.

“But until then, we better eat when we're hungry and sleep when we're tired,” Dig said. “And I'm both.”

Jim grumbled good-naturedly, “I'm always hungry.”

“So is everybody else.” Dig brought out the ration food bar and a plastube of chocomilk for each. “And this time, don't waste your breakfast, Jim.”

“Not on you I won't,” Jim laughed.

The boys ate and retired to their bunks for several hours of sleep. They awoke refreshed, finished the remains of their meal, and went back to work.

They tested the soil samples all through that day and into the next. When the report was finally ready, Dig put on his spacesuit.

“You might as well start on the rock samples,” he said. “I'll take this report to Fallon.”

“I feel like going out to stretch my legs,” Jim said. “We've been cooped up in here for days.”

“I'll wait. Get your spacesuit,” said Dig. “How about you, Ken?”

“You go ahead. I'll stay and work.”

Fallon was in his office with Corey when Jim and Dig came in. The geologist had just returned from a survey of the entire valley. He was describing his trip enthusiastically.

“If I had to choose the best spot for this experiment in creating an atmosphere,” the young man was saying, “I couldn't have done better than Captain Boyd Allen did!”

“Hello, boys.” Fallon looked up.

“We have the report on the soil, sir,” Dig said, handing Dave the papers.

“How is it?” Corey asked.

"Very good land," Dig answered.

"There's a lot of natural fertilizer. All it needs is water."

"And air," Corey reminded him. "We'll be building up our atmosphere faster now," Fallon said. "Daro is assembling another nuclatomizer. Should be almost finished."

"So that's what those tremors were," Jim said. "I thought they were earthquakes, the way the ground shook. We could feel the vibrations on board the *Starover*."

"Daro had to blast a large hole in the ground," Fallon explained. "Just common, ordinary dynamite made the vibrations. No earthquakes."

"The rock-sample report will be ready in a couple of days, sir," Dig said.

"Fine." Fallon waved his hand over the soil report. "I'll have the farm groups get started on this right away."

Jim and Dig went out, leaving the engineer and geologist working on the mass of reports spread out over the desk.

Outside they found the colony humming with activity. There was a cheerfulness about it that had been missing before.

"Things are moving ahead smoothly," Jim said. "We were wrong in expecting more trouble."

"I hope so," Dig said, soberly. "But men who try to destroy a spaceship with passengers in it aren't going to give up easily."

"We don't even know what they're after!" Jim said. "Maybe it was the work of some crank? A space goofy guy would do..."

"And Rowan stealing the Jupiter report from Eros?" Dig asked. "And the attempt to ram our ship? A lot of space goofy characters must be running around loose. No, Jim! This is the calm before the storm!"

A fourth nuclatomizer was standing beside the first three. Daro called them over his radicom as the two boys



approached.

“Just in time, lads,” the foreman greeted them. “We’ve got the new nuclatomizer started.”

A wisp of foggy air came curling out of the funnel-mouth of the monstrous machine. It turned into visible vapor as it touched the outside cold, then faded.

Daro turned and waved his hand.

“Working fine!” he called over his radicom.

From the control dome window, they could see the face of the communications officer watching them. The man waved. His voice came over the earphones.

“Controls all set, Daro! She’s working steady!”

The foreman turned to the Space Explorers.

“Aye, lads, ye’ll see things popping now! We’ve got three machines turning out air! Pretty soon we’ll have an atmosphere as good as Mars’ in this valley.”

“How soon?” Jim asked.

“A week, maybe less,” Daro replied. He glanced at the large atmosmeter hanging from the wall of one of the nuclatomizers. “After we match Mars, we can take off our spacehelmets.

He paused suddenly, his eye on the instrument. For a moment he stood perfectly still. Through the glassteel spacehelmet, the boys saw a look of surprise spread over the man’s face

“What’s the matter?” Dig asked.

“I don’t know,” Daro answered in a choking voice.

He turned back to the atmosmeter, tapped it gently, studied it again. He went away for a minute, without a word.

When the veteran spaceworker returned, there was fear in his voice.

“The pressure is falling! The air is escaping faster than the machines can make it!”

## 15 The Enemy Strikes

HARDLY CREDITING THE FOREMAN'S WORDS, JIM AND Dig went to the atmosmeter to see for themselves.

"You must have made a mistake!" Jim cried.

"I did not! I've just checked with two other instruments. See that?" Daro pointed to a tiny red mark next to the figure "2." "I marked the place myself-where the pressure was two hours ago, before this nuclatomizer was finished!"

The pointer had slipped to the "1.8" mark.

"I'm no engineer," Daro said hoarsely. "What does this mean?"

"Air pressure at sea level on Earth is 14.7 pounds per square inch," Dig said. "We need close to seven pounds of pressure to live without spacesuits."

"Then we're through!" Daro said. "If the air escapes this fast, we can't set up enough machines to keep up with it!"

"He's right, Dig. Looks like Ganymede is through," Jim said.

"Your father couldn't have made such a mistake, Jim!"

"Look at the atmosmeter!" the tall boy insisted. "That doesn't make mistakes either!"

"Dr. Barry figured this carefully. If he said the air wouldn't escape quickly, he knew what he was saying!"

"But how can the air get away? Up to now it hasn't escaped.

"I don't know," Dig said, swinging about. "This should be reported to Mr. Fallon at once."

Daro and Jim followed the red-haired boy into the airlock. They didn't waste time taking off their spacesuits, but hurried to the engineer's office.

Fallon and Corey were surprised to see them stride through the door.

"Didn't expect you back so soon," the engineer said, smiling.

His smile changed to a stunned expression when Dig told him about the drop in the atmosphere.

"Air escaping?" he repeated, his face turning pale. "I don't understand. It's not possible."

"If it's true, we have to accept it," Corey said seriously.

"I'm going back to the *Starover*," said Dig, swinging about. "I'll report this to Dr. Barry."

"Ask for instructions," Fallon said, shaking his head helplessly.

"The colony is in danger, then?" Corey asked. His usual smile was gone. He looked worried.

"It is," Fallon said. "Tell Space Research, Dig."

Ken was busy testing rock samples as Jim and Dig entered the control cabin.

Dig quickly told the blond boy the news. Ken pushed aside his test tubes.

"The great experiment!" he said weakly. "New worlds for u to build on all the planets of the Solar System! A failure if the air escapes this fast...."

Dig dropped into the pilot seat and switched on the tape recorder. Hurriedly he dictated a complete account of the happenings on Ganymede.

"Check all your figures," he finished. "We are waiting for your reply."

He switched off the recorder and flipped on the radarscope. The tape unreeled automatically as his words were flashed out across space at the speed of light.

"Nothing to do now but wait," he said, taking off his spacesuit. "It'll take a few minutes for the message to get there, and more minutes for the reply to come back."

"We'll wait," Jim said softly.

The three boys gloomily watched the chronometer tick away seconds, then minutes. After what seemed an unbearably long time, a signal sounded from the

instrument panel.

"Eros control to *Starover*. Dr. Keith Barry, Director of Space Research, will reply to your urgent message. Please stand by!"

"Does that spacerookie always have to be so formal?" Jim complained.

"That's how he was taught at Space School." Dig smiled.

The calm voice of Keith Barry came from the loudspeaker.

"Hello, Dig, Jim, Ken," the scientist said warmly. "Glad to know you boys are all well." Then he became the efficient Director of Space Research. "I have checked all figures carefully on the computer. They are correct. I repeat, *all figures are correct*. However, should the atmospheric pressure continue to drop, Mr. Fallon is ordered to prepare the colonists for departure. Again I repeat, prepare the colonists for departure! Ganymede will be abandoned!"

Keith Barry paused. After a silence his voice came over the speaker again.

"I don't know why the air is disappearing. Perhaps there's a leak in the mountain range. But Captain Allen checked it carefully, and he doesn't make mistakes. Perhaps there is some other reason. You must find out what it is. You know how much depends on this Ganymede experiment."

"We do," Jim murmured, though he knew his father could not hear him.

"The space freighter *Merchant of Mars* is bringing you food supplies. It should arrive there soon," Dr. Barry went on.

"A lot of good that'll be!" Jim muttered under his breath.

"Take care of yourselves," the scientist continued. "Mother sends all of you her love. That is all."

The switch clicked and there was silence. The three boys sat for a long time, each buried in his own thoughts.

A voice calling loudly through the shaft startled them.

"It's Billy," Ken said. He walked over to the hatch and looked down. "Hi, Billy," he said in a subdued tone.

"Can I come up?"

"You may," Ken replied.

A moment later the boy's head poked up through the hatch.

"Say, I had a great time!" he exclaimed. "Daro let me take a rocket-jeep and extra rations and I've been all over the valley! Planting seeds! Say, you should see how long the river is now! Miles and miles!"

Noticing his friends' lack of enthusiasm, the boy stopped and stared at the Space Explorers.

"What's the matter?"

Ken told the boy the bad news.

"Leave the valley!" Billy cried. "They can't mean it!"

"I'm afraid they do," Dig said. "We've got to give Mr. Fallon the message."

Billy glanced at the photo-map on the wall.

"It was going to be such a beautiful valley," the boy said wistfully.

"I know," Dig said with a sigh. He joined the boy at the map. "I made it, Billy. You can have a copy, if you want."

The boy shrugged, not impressed.

"You made a mistake," he said.

"But I couldn't have-the camera picked up exactly what's out there."

"This mountain isn't there," Billy said, pointing to one of the smaller peaks at the far end of the valley.

"Of course it's there," Jim said. "How do you think Dig photographed it?"

"But I was out there. I planted seeds all along the mountain slopes. That mountain isn't there!"

"You sure?" Dig flashed a quick glance at the photo-

map.

“Of course!”

The red-headed boy whirled away from the map.

“That's it!” he cried.

“What's it?” Ken asked.

“It was there when we explored the valley! It isn't there now!” Dig shouted in his excitement. “Someone removed it!”

“Removed a mountain? You're spacegoofy!” Jim laughed.

“With an explosion, maybe! Blasted it!” Dig continued. “Get into your spacesuits!” He dived toward the hatch and clambered down the passageway. The others followed him. They hurriedly put on their spacesuits and entered the airlock.

Over the radicom, as they climbed down the wire ladder to the ground, Dig explained.

“We've got to have a look! The air is escaping through the gap in the mountains! Get a rocket-jeep, Ken!”

“Aye, aye!” Ken rushed off for the parking lot.

“Lower the volume on your radicom,” Dig directed. “We don't want anyone to hear us.”

They tumbled into the jeep as Ken brought the little car around. Within seconds they were speeding along the crude road laid out through the middle of the valley.

Their progress was rapid until they reached the end of the road, where they were forced to travel over the rough ground. Two hours later they sighted the mountain range at the far end.

“Get as close as you can,” Dig directed. “I can see the gap.”

“The valley slopes down this way,” Jim said. “The nuclatomizers push out the air and it rolls down this way and out through that gap.”

Dig was the first to jump out as Ken braked the jeep to a stop. He scrambled over the mass of rocks and

boulders, followed by the others.

"It took more than one explosion," Jim said, "to blast this hole!"

"Must have taken quite a few to blow the top off," Dig said. "See? The rocks were thrown way out into the valley."

They went further into the gap, examining the sides of the mountain.

"I'd guess at least a dozen explosions," Ken said. "Not big ones, but each chopping the hole deeper and deeper through the mountains."

The ground rose steeply as they climbed upward. The cliffs on both sides of the gap towered above them. Dig, who was in the lead, stopped when he reached the blasted-out area. Here the mountain had been leveled to a roughly flat plateau. The dust kicked up by their boots drifted before them on the invisible flow of escaping air.

"There's the other side of the mountain!" he said with a bitter smile.

His companions crowded behind him. The ground sloped sharply downward. They looked beyond the narrow gap into another valley, bordered on both sides by the same mountain ranges.

"Here the mountain range isn't as thick as on the sides of the valley," Ken said, looking about. "It's thin. Like a wall dividing the two valleys."

"He knew what he was doing," Jim said angrily. "A real expert! Picked the right place, maybe the only place, where a gap could be blasted through!"

Wearily, Dig sat down on a large boulder.

"He had my father's report on Jupiter's moons to guide him," he said. "Why shouldn't he know just where to blast?"

## 16 Desperate Chance

DIG'S CALM STATEMENT STARTLED HIS FRIENDS. HE seemed very sure about it.

"Rowan? Is he here?" Jim exclaimed. Impetuous, he seldom stopped to question his friend.

Ken, more cautious, wanted proof. "How can you be so sure?"

"There's only one complete survey of this valley," Dig explained, "the Jupiter report. My father explored all the moons and picked Ganymede. He explored Ganymede and picked this valley."

Ken thought this over carefully. Then he admitted, "If anyone would know of the narrowest part of this range, Captain Allen would."

"Also the man who stole his report!" Jim added.

Billy brought the Space Explorers back to the problem they faced. "What can you do about it?"

"Do?" Ken asked.

"You know Rowan blew the gap. All right, he did. But that won't save the colony!"

The boy was angry. Clutching old Svenson's bag of seeds, he turned and began to descend to the valley.

Dig looked after the boy quietly. "Billy's right," he said. "It doesn't save the colony."

"Maybe we can build a sort of wall across the gap?" Jim suggested. "A dam to hold back the escaping air?"

Dig twisted around and stared up at the high peaks.

"A dam *could* be built," he said. "But it would take too long. And we'd need about five shiploads of materials."

"Guess that's out," Jim said gloomily.

"But there may be another way, Jim," Dig said.

For a long time he studied the bordering cliffs. He stood up and walked across the blasted area to look up toward the mountaintops.



“Well? What are you thinking about?” Jim asked impatiently.

“I’ll tell you,” Dig replied. “Maybe we can blast the tops of the peaks on each side and close the gap that way.”

“You mean start something like a landslide to fill in the opening?” Ken asked. “Say, that might be done!”

“Let’s get back to the jeep and have a look from a distance.”

They scrambled down the rocky slope and ran in long, leaping strides to the jeep. There they stopped to study the cliffs on both sides of the gap.

“We can do it!” Dig finally said confidently. “The mountains on each side are high. We’ll blast the tops off into the gap!”

“It might work! The gap isn’t wide!” Ken agreed.

Dig turned the dial on his spacebelt, raising the power of his radicom to its longest range. “Dig Allen calling Control at colony! Dig Allen calling Control! Can you hear me?”

“If they don’t,” Jim said, “I’ll grab the jeep and ride out there!”

“No need, Jim. Thanks to Corey’s having repaired the communications,” Dig said, “we can reach them from here.”

A weak recognition signal came over the radicom earphones. There was a crackle of static, then the voice of the communications officer was heard clearly.

“Colony Control. I hear you, Space Explorer. What do you want?”

“Get Fallon! Urgent!”

“Aye, I’ll do that. Stand by!”

While waiting for Fallon, Dig called Billy. The boy came trotting to him.

“There should be some spare oxytanks in the jeep,” he told Billy. “Get them out, will you?”

“Aye,” the boy replied.

He found two spare tanks in the compartment under the seats, and brought them over.

"Use one of the spares while you recharge your oxytank," Dig said. Turning to Ken, he added, "Start the recharging pumps on the jeep and fill up all our tanks."

"Aye," Ken said, taking off his own and strapping the spare one to his back.

Ken was busy at the jeep when Fallon's voice came over the radicom.

"Where are you?" the engineer asked anxiously.

"At the far end of the valley," Dig told the man. He then gave Fallon the message from Dr. Barry.

"I was afraid of that," Fallon said sadly. "To leave the colony and everything we've built here—"

"We may not have to," Dig interrupted. "There's a gap in the mountain range where the air's escaping. It can be fixed."

Before the surprised engineer could question him, Dig plunged into a detailed description of the gap and the steep mountains on each side of it.

Fallon listened carefully, mentally calculating the force of the explosion that would be needed to start a landslide large enough to fill in the gap. When Dig had finished, the engineer remained silent for several minutes.

Uneasy, Dig asked after a while, "Well, sir?"

"We'll need more explosives than we have in the warehouse," the engineer said slowly. "It's a good plan, Dig. But Daro used up the last of our dynamite preparing the foundation for the fourth nuclatomizer."

Dig tried to shake off the gloom that suddenly wrapped itself around him. "Well, it was just an idea," he said at last. Then, with a vain renewal of hope, he asked, "Can we call Eros and have them send us the explosives we need?"

"It'll take a long time. And we can't wait."

"Maybe Dr. Barry will give us permission to stay here."

"Maybe," Fallon replied. His voice, too, was hopeless.

“Meanwhile, I must make preparations to abandon the colony.”

“If you could only *make* the explosives—” Dig began.

Fallon broke in excitedly. “Wait a minute! Maybe I can!”

Too surprised to speak, Dig remained silent. Jim and Ken moved closer to him and waited tensely.

“The nuclatomizer can make oxygen and hydrogen,” the engineer said slowly. “I could adjust the pressure to make liquid oxygen and liquid hydrogen. And these can be very explosive! It might work!”

“How long will it take?” Dig asked anxiously.

“The machines are set to make those elements,” Fallon replied. “There is a pressure and temperature adjustment...” He thought for a moment, then continued, “I’ll join you as soon as I can—if my idea works. If it doesn’t, I’ll call you!”

The engineer switched off. Dig turned to his friends. There was a lively sparkle in his eyes.

“You heard,” he announced. “All we can do now is wait.”

The waiting lasted for several hours. All the oxytanks had long since been recharged and the spare ones stowed away the jeep when they sighted Fallon approaching in a cloud of dust in the distance.

Daro was driving the rocket-jeep, which bounced and swayed over the rough ground. Several bulky containers filled the back seat of the little car.

Fallon called over the radicom as soon as he saw the little group waiting for him. “I’ve got the explosive,” he said. “Liquid oxygen and liquid hydrogen are tricky and dangerous. But it’ll work!”

Daro drove his jeep as close to the gap as he could get before stopping.

“So we won’t have so far to carry the stuff, lads,” he announced with a chuckle. “These vacuum containers be mighty heavy.”

Fallon jumped down and looked at the Space Explorers.

"That's right," he said. "And their outside casings are getting mighty cold in spite of the insulation. Those liquefied gases have been chilled almost to absolute zero. Our spacesuits will protect us, though. Let's get started!"

While Daro wrestled the three containers out of the jeep, the engineer studied the sheer, towering cliffs.

"You won't have too far to climb," he said. Then, pointing, he went on, "We'll set the explosives up there. All we need to do is start the landslide."

With his space boot he scraped at the ground. The soil was loose and sandy.

"This is fine," he said. "I'll set off a third explosion to throw loose dirt over the rocks that will crash down into the gap. The small particles will cover the cracks between the rocks. As the air tries to escape, it will pack the dirt in harder between the stones!"

"Explosives be ready, sir," Daro said. From the containers a faint mist was rising. Daro, smiling, pointed to it. "The air here has some moisture in it," he explained. "The cold of the containers be turning it into vapor."

"Be careful," Fallon said, turning to Dig. "You and Ken take one of the containers up the left side of the gap."

"Aye, aye, sir." Ken reached for the container and hefted it up to his shoulder. "It's a good thing there's not any more gravity on Ganymede," he added, staggering a little.

"Daro and Jim, take yours up the other side!"

"Aye, sir." Daro slung the container to his shoulder.

"Get up about three hundred yards," the engineer ordered. "Then call me." He looked about him and caught sight of Billy. "Billy and I will prepare the third charge."

"Yes, sir," the little boy said, looking up at the engineer admiringly. "What shall I do?"

"Get me a shovel out of the jeep."

"Aye, sir!"

The climb up the sheer mountainside was difficult. Both pairs moved slowly, scrambling from one ledge to the next.

Fallon watched for several minutes as Dig and Ken on one side of the gap and Jim and Daro on the other moved steadily upward. Then he took the shovel from Billy's hands and walked away from the gap.

Some distance away, he turned and faced the opening in the mountainside.

"This is where I'll put in the third charge."

His earth-trained, well-developed muscles enabled the engineer to dig rapidly. By the time he received a radicom call from Ken, he had made a hole several feet deep.

"Is this high enough, sir?" Ken called.

The engineer looked up. "It is, Ken," he replied. "See if you can creep around over the gap."

"There's a ledge here," the boy replied. "I can make it."

The engineer watched as the small figure moved slowly along the face of the cliff.

Ken's voice came over the radicom earphones, saying, "Dig, pass the container to me."

A moment later Jim called on the radicom. "We're about as high as Ken, Mr. Fallon. I can get around to the side of the gap."

"Good," Fallon replied. "Place the container and call me when you're ready."

The engineer hurried to his jeep to get the third container of explosives, which had been set on the ground. He brought it back and placed it beside the hole.

"Are you ready?" he called, looking up at the gap.

"Aye," Ken replied. "All set."

"Same here," came from Jim.

"There's a timing device on the top of the container. Set the indicator on one half hour."

"Aye, sir!" the answer came from both sides of the gap.

"I'm setting mine to explode at one half hour plus three minutes so that the loose earth will fall on top of the rockslide." The engineer adjusted the dial on his container, then called again. "Push the plunger in on the countdown. Five seconds! Four! Three! Two! One! *Push!*"

On the word, the engineer thrust down hard on the plunger of his container.

"Now get down as fast as you can!» he shouted. The next instant he had leaped down into the hole and placed his container of explosives firmly in the loose dirt.

Billy was ready with the shovel when the engineer crawled out of the hole. Quickly he began to shovel back the dirt.

"Billy, can you drive a rocket-jeep?" he asked.

"Aye, sir."

"Take one of the jeeps and go to meet Daro and Jim!"

"Aye, aye, sir!" The boy rushed off to obey.

As soon as he had finished, Fallon took the second jeep and sped to the base of the mountain. There he waited anxiously until Dig and Ken came scrambling and tumbling down the slope.

"Hop in!" the engineer called.

The two boys tumbled into the jeep, which started immediately, swerving wildly as Fallon made a sharp turn and headed down into the valley.

On the other side, Billy raced his jeep as Jim and Daro clung desperately to its sides.

No one spoke as the two jeeps sped away from the gap, bouncing crazily over the roadless ground.

They drove steadily for several miles. Then Fallon called a halt.

"Far enough," he said.

The two jeeps drew closer together and stopped. The group turned their eyes back to the mountains and watched the gap. The engineer counted off the last thirty seconds.

Suddenly there was a soundless flash of fire that billowed out from the side of the cliff. Dust and rocks and large boulders shot out of the mountainside. Through the ground, they felt a rumbling quiver as the double landslide began.

A moment later the gap was blotted out of Sight by a billowing cloud of dust. The third explosive had gone off.

“That's it,” Jim said.

“Yes, that's it,” Fallon repeated in a strained voice.

“The colony is saved,” Ken said.

“Not yet,” the engineer said. “We won't know until the dust clears. The explosions might have knocked down the rest of the mountainsides!”

## 17 The Runaway Ship

THEY WAITED, WATCHING THE MUSHROOM CLOUD BOIL and billow overhead. There was little atmosphere to keep the dust floating for long.

After a while they drove slowly toward the gap. A fair-size crater was torn in the ground by Fallon's bomb. Beyond it, the gap was filled in.

"It worked!" Jim cried enthusiastically. "You're a wonderful engineer, Mr. Fallon," The boy looked at him with new respect.

They left the jeep and walked around the edge of the hole.

"In a week or two we'll finish this job," Fallon said.

"Finish it?" Ken asked. "What more does it need?"

"The gap is filled," Fallon pointed. "But not high enough. We'll build it up to reach the levels of the other mountains."

Billy had wandered off while they were talking. He was some distance away, poking about at the edge of the crater.

"Hey, Billy!" Jim called. "What are you doing?"

"Planting seeds," the boy replied. "This is going to be a lake someday, isn't it?"

Fallon laughed. "Billy said it for all of us! This is our lake!"

"Then a lot of work's been saved us, Chief," Daro chuckled. "Let's jet back to camp, Chief. That space freighter was supposed to come in..."

"The food ship's coming?" Dig asked.

"Forgot to tell you," Fallon said. "Word came just before we left the colony. She should be here by now."

"Who's in charge of the colony, sir?" the redhead asked, frowning.

"Corey," Fallon answered briefly. "A pretty reliable



man.”

They jumped into their rocket-jeps and drove toward the camp. Behind them the cloud was still hanging high, but the dust was settling back quickly.

Fallon called over the radicom. “Colony Control! Calling Colony Control! This is Fallon.”

Corey's voice replied. “We saw the dust cloud, Chief. What was it?”

“An explosion, Corey. The colony is saved!”

“My congratulations, sir,” Corey said. “And you'll be interested to know the space freighter has landed. The colonists plan a celebration—all we can eat!”

Fallon laughed. “A good idea, Corey! It will be good for everyone's morale. We'll be back in less than two hours.”

The rocket-jeps raced toward the colony. They arrived at the settlement to find the tables set with food and everyone in holiday spirits.

The people greeted them with cheers and hand-clapping as they entered the crowded room.

Bob Jamison met them at the door.

“You sit at the main table,” he said, smiling in welcome. “Right next to the captain and crew of the *Merchant of Mars*!”

Captain Garrten, a long, serious-faced man, rose and shook hands with Fallon and the Space Explorers.

“If you don't mind,” Billy said, tugging at Dig's sleeve, “I'll go and sit with Aunt Martha.”

“Sure, Billy,” Dig replied. “Mrs. Svenson is probably wondering where you've been.”

“Gosh! She worries a lot about me.”

Ken bent down and whispered into Billy's ear. “Like a mother, Billy.”

“It's nice to have someone worry about you,” Billy nodded seriously. “But sometimes... well, I'm not a baby any more, you know!”

“I know. Run along!”



They ate the delicious meal, surrounded by a general hubbub of laughter and chatter. Dig was quiet, Ken a little worried and uneasy.

“My cautious little brother,” Jim said, noticing Ken's mood, “Why don't you just enjoy yourself?”

“I don't know. This is too good to last.” Ken spoke in a low voice.

“Our mysterious enemy going to strike again?” Jim laughed. “I think he's licked.”

“I hope *he* knows it,” Ken replied in a whisper. “I can't help thinking of Rowan, disguised as one of these colonists.”

Looking serious, Dig studied the Hushed, happy faces.

“You, too?” Jim laughed and slapped his friend on the back. “Come on, Dig! This is no time for gloom!”

“Well, maybe not...” Dig grinned sheepishly.

At that moment, they felt the ground under their feet begin to shake!

“What's that?” one of the colonists shouted, frightened.

With a roar, Captain Garrten leaped to his feet.

“A ship's blasting off!” he cried.

He pushed the table aside and rushed to the dome's window. The Space Explorers were a step behind him.

They reached the glassteel window in time to see the fiery tail of the great spacefreighter rising above the ground. The ship was big and heavily loaded. It was an old model and lumbered clumsily as it took off, swaying from side to side until it picked up speed.

Captain Garrten whirled about to face his table. His crew sat still and tense as he glared at them.

“Ye be here! Everyone of ye!” he raged. “And why was no watch left on board?”

“Why, sir,” a young mate replied, standing up, “we were all invited. There was no need to leave a guard. Mr. Corey assured us no one would steal anything, sir. That is... the cargo is for the colony and...”

“How did it happen?” Fallon asked, reaching the Captain's side.

“Automatic take-off tapes and a set time for blast-off!”

“The ship's controls were set on neutral, sir,” the young mate insisted. “I set them myself, sir.”

“He's telling the truth, sir,” Corey added as he joined

the group. "I was on board at the time and saw him set the controls. They were on neutral, sir."

"Then someone boarded the ship afterward," the Captain said, frowning. "She's gone!"

The spaceman peered through the window.

"Headed for Jupiter," he muttered angrily. "Someone set that course for her!" He turned from the window. "My ship's gone!"

"And our food!" Corey said. "What are we going to do now? It looks like this colony is doomed!"

The geologist kicked a bench furiously, then walked away.

The colonists slowly began to move toward their quarters, gloomy and silent.

Dig took Jim and Ken by their arms and quickly steered them toward the airlock.

"Put on your spacesuits," he said. "Let's get out of here!"

"Where to?" Jim asked when they stepped out of the airlock.

"The *Starover*! And step on it!"

Neither Jim nor Ken questioned their red-headed leader until they were inside the Explorer Ship. Then, as Dig climbed into the pilot seat and prepared for blast-off, they turned on him.

"Isn't it time you told us?" Ken asked. "What are you... what are *we* up to?"

"We're going to get that spacefreighter back!"

"Why didn't you tell us before?" Jim asked.

"I didn't want anyone to overhear until we had blasted off. It's tricky and dangerous-and someone might have tried to stop us."

Dig set power at 2-Gs and pulled back on the release lever. The *Starover* shook as the rockettubes exploded with flame. Slowly the ship rose spaceward, then began to pick up speed.

“Jim, take the magnascope! Ken, the radar! Find the freighter!”

“Aye, aye, sir!” The two boys leaped to their posts eagerly.

Within a few seconds, Ken had picked up the freighter on the radar screen.

“Heading straight for Jupiter!” he announced.

Dig changed course and increased the power.

“She's had a good start on us, but we'll catch up to her soon!”

“I hope it's before she crashes into Jupiter,” Jim said.

“It'll be close, but we'll make it,” Ken said, checking the dial readings and feeding them into the computer. When the answer came out, he glanced at the plastic tab and handed it to the red-haired boy.

Dig corrected the course again, then leaned back to wait.

Through the viewport the fantastic size of Jupiter kept increasing. It soon filled almost the entire view of space. A small black speck became visible against the gray of the planet's surface.

“There's the *Merchant of Mars*,” said Dig, staring at the ship.

Jim magnified the image on the magnascope screen.

“Her rocketubes are still blasting. She's picking up speed.”

“That's not good,” Dig said, worried.

They were silent until the *Starover* reached the side of the great spacefreighter. Dig brought the two ships close. They were now dropping rapidly toward the surface of Jupiter.

A thick atmosphere covered the planet. It was not an atmosphere of air but a heavy, slushy ocean of frozen methane and ammonia gas. What lay beneath, on the hard surface of the planet, was hidden from them.

Dig steadied the spaceship, then released the magnetic

grappler. But as he did so, the *Starover* fell behind and the grappler missed contact. The surface of Jupiter loomed ever closer ahead.

Ken's fingernails dug into his clenched palm. Jim barely breathed. Something—was it a magnetic current to which the larger ship was immune?—interfered with the *Starover's* speed, while the spacefreighter went steadily toward its doom.

At the fourth try Dig said tensely, "This is our last chance!" At any moment the wall of slush ahead would engulf them.

This time the grappler floated lazily across and caught the nose of the freighter. The magnetized disk held firmly.

"We've done it!" Jim cried.

Dig started the nose rockets, swinging the *Starover* slowly away from the huge planet. The steelite cable grew tight as the strain increased.

Little by little, the *Merchant of Mars* began to turn. The ships made a great arc as they changed course. Soon they completed the turn and both ships were pointing toward space their blazing rocket flames trailing toward the giant planet. '

## 18 Mutiny!

DIG SIGHED AND WIPE THE PERSPIRATION FROM HIS brow. "Take the controls, Ken. Steady as she goes!"

"Aye, aye, sir!" the blond boy responded with relief. "I'll set her down on Ganymede."

"One thing more," said Dig soberly. "I've got to board the *Merchant of Mars* and land her."

"You've done enough, Dig. It's my turn to do something," said Jim.

There was no arguing with the tall boy. Resolutely Jim dived into the passageway.

"Take a rest, spacechum!" he called back to Dig.

\* \* \*

When the two spaceships came down on the colony spaceport, Jim was at the freighter's controls. The boys put on their spacesuits and climbed out.

They noticed almost at once that the clearing was deserted. Jim waited until his two companions caught up with him.

"Where's everybody?" he asked. "You'd think they'd be here to give us a royal welcome."

An ominous stillness hung over the settlement as the three boys entered the airlock. Inside, they put away their spacesuits and went into the great room of the main dome.

A silent crowd sat at the tables. No one moved or greeted them.

"What's the matter with you people?" Jim called out.

"Shut up!" a voice snarled.

Briggs and two hard-faced spaceworkers stepped behind the Space Explorers. They were carrying stun-ray guns.

"What's going on?" Dig asked indignantly.

"I told you to shut up! Next time I'll knock you down!"

Dig glanced around the room. At the main table he saw Fallon sitting, apparently at the mercy of these men.

"Mr. Fallon!" Dig called.

Briggs started toward him, but was restrained by one of his companions.

"Let the kid find out for himself," said the spaceman. Briggs shrugged, but kept his gun at the ready. The engineer raised his head and looked at the red-haired boy.

"It's a mutiny," he said simply.

"Mutiny?" Dig whirled on Briggs. "Have you gone crazy?"

"No, not crazy." It was Corey who spoke. He came forward slowly, holding his hand out to Dig. Lying in the palm was a large rough stone, the size of an egg.

"What's that?"

"A diamond, Dig. Worth a fortune."

"Where did it come from?"

Corey signaled and a spaceworker dragged Billy Todd forward. He took the plastic bag of seeds from the boy's hands and opened it.

Putting his hand inside, Corey drew out a fistful of diamonds, several as big as the first one. He tossed them to Dig.

"This moon is full of them," the geologist said.

Dig picked one up and examined it. He was not an expert, but the clean, bluish tint of the stone made him believe that it must be valuable.

"Cut and polished," Corey said, "one of these stones is enough for a colonist and his family to retire on for life. And there are carloads of them here."

"Where did you get them?" Dig asked Billy.

"The other side of the valley," the little boy answered. "I picked them up at the crater that was blasted. They were all over the place. I was planting seeds and picked these stones up. I thought they were pretty..." Bewildered,



the boy stopped and looked about him.

"That's the reason for the mutiny," Corey said. "Space Research knew about them all the time."

"What difference does it make? Is that a reason for revolt?"

One man, a colonist, jumped to his feet waving his fist angrily.

"Space Research fooled us!" he shouted. "They lied about setting up a colony here!"

A rumble of angry voices rose through the room.

Jason Lambert, the chemist, leaped on top of a table.

"Wait!" he cried. "Wait! Think! Why should Space Research lie to us? Why should they fool us? This land is good! The atmosphere is building up! We can make our homes here..."

The piercing hiss of the stun-ray gun sounded across the room. Lambert flew off the table as if hit by a club. Several of the colonists picked him up and carried him to the nearby hospital.

"He'll be all right in a couple of days," Briggs sneered. "Now I'll tell you why they tricked us! Aye, I know! I was foreman!"

"Nobody will believe ye," Daro taunted the burly man. "Ye be a shifty liar, Briggs!"

Briggs whirled on Daro. He raised his stun-ray.

"Stop it!" Corey's angry command rang out.

Corey glared at Briggs. "If you've got anything to say, say it! You were foreman when the colony was started. What do you know?"

"Space Research knew all about the diamonds here," Briggs said, raising his voice so that he could be heard across the room. "And there's gold here, too. And a lot of other valuable stuff! They were planning to start a mine..."

An angry roar rolled like a wave around the room at his words. Men were standing up everywhere, arguing and shouting.

“Wait!” Corey cried above the uproar. When the noise had subsided somewhat he said, “Go on, Briggs!”

“They needed miners, but the work was too dangerous! They had to trick you folks to come here!”

At this news, the shouting increased. Fighting began in one corner.

“It’s a lie!”

“It’s true!”

Dig leaped to a table and, raising his hands high, shouted for order. Corey climbed up to stand beside him.

Presently the crowd of angry spaceworkers and colonists quieted down again.

“What Briggs told you is not true!” Dig said. He paused as all eyes turned on him. “If Space Research wanted to open mines here, where is the mining equipment? You’ve been plowing and laying wires to warm the earth for crops!”

“He’s right!” a colonist shouted.

A rough spaceworker stepped forward. “I’ve worked in mines,” he said. “Ye don’t need an atmosphere to do that! Domes and holes in the ground, that’s all that’s needed. Aye, lad! I believe ye!”

From every side rose shouts of approval. The mass of workers and colonists surged forward in an angry mood.

Briggs and several of his men retreated, waving their stunray guns at the crowd.

“Stand back or I’ll blast ye!” the big man was shouting.

The crowd ignored his threat and came on, hurling the tables and benches aside.

“Wait!” It was Corey raising his voice. “Wait! Listen to me!”

Again the people hesitated. They turned to stare at the young man standing on the table beside Dig Allen.

He waited until it was quiet in the room. When he spoke, it was almost in a whisper. The crowd became very still, listening for every word.

"I know something about this," he said. "I'm a geologist. It's my business to study the earth, the rocks, the formation of the mountains..."

The crowd was puzzled. They stared and waited patiently. Corey continued, a smile on his thin lips.

"The mountains all around this valley are full of diamonds and other precious stones. Dig down and you'll find enough in an hour to live on comfortably for the rest of your lives. You and your families!"

"What be ye driving at?" a spaceworker asked.

"Space Research *must* have known about it!" Corey shouted. "They had a complete report made out by Captain Boyd Allen, one of the finest Space Explorers they have! In his report, Captain Allen describes deposits of valuable minerals... *and diamonds!*"

The crowd shifted uneasily.

"You don't *know!*" Dig cried, facing the young geologist. "You're just guessing! No one saw the Allen report except Dr. Keith Barry and one or two other top men in Space Research!"

"Did you see the report?" Corey asked Dig.

"No..."

Triumphantly the man turned to the crowd. "Not even the Space Explorers were let in on the secret plot to start a mine here!" he shouted.

"That's a lie!" Dig cried. "The report was stolen before we could read it!"

Corey turned to the crowd, still smiling.

"I can show you the report," he said.

"You? You've got a copy?" Dig stared at the geologist in astonishment.

Corey pulled an envelope from his pocket and held it up for the crowd to see.

"Here it is! The proof that Space Research has betrayed you!"

Dig snatched the envelope from the man's hands and

ripped it open. A packet of folded papers was inside. Dig saw at a glance it was the Jupiter report. At the top of the first page, he recognized his father's signature.

"The original report," he gasped.

Corey was eyeing him, amused.

"Yes, the original report," he said quietly.

"You... you're not Corey!" Dig shouted.

"I'm Andrew Corey-Rowan, if you want to know my full name," the geologist said.

With a cry of rage, Dig leaped at the man. They wrestled across the table, then tumbled off and rolled close to the feet of the swirling mob.

Above the noise, Dig heard the roaring voice of Daro.

"To me, all true men! Disarm the mutineers! Save your colony!"

Corey-Rowan tore at Dig's hands, kicked, and freed himself. Dig rolled over, then leaped to his feet.

"Jim! Ken!" Dig called out. "To Daro's side. Fight your way through!"

He pushed his way through the angry, milling crowd. A group of men were forming around Daro on the other side of the room. Frightened women and children huddled against the wall.

Dig started to cross toward them.

Briggs' figure suddenly loomed in front of him. The man aimed his stun-ray gun.

Dig saw the finger squeeze the trigger.

Then darkness engulfed him and he dropped to the floor.

## 19 The Last Traitor

DIG AWOKE IN THE HOSPITAL ROOM. HIS BODY WAS stiff and aching as he turned over and looked about him.

Jason Lambert was sitting up in the bed next to his. The chemist smiled as he saw the boy open his eyes.

“How are you, son?” he asked.

“All right, I guess,” the young Space Explorer replied. “Feels like all my bones were broken.”

The man chuckled. “I got it, too,” he said.

“I know. I saw Briggs blast you. How long have I been here?”

“They tell me two days,” Lambert said. “I was out cold too.”

“When can I get up?”

“Ask the Doc,” Lambert said. “He's coming to release me any minute now.”

Dig raised himself up to a sitting position, groaning with the effort.

He was sitting up when the doctor came into the room.

“Sitting up, eh?” Dr. Danvers said. “How do you feel?”

“Stiff as a starched shirt.”

“That's good,” the doctor said.

“What's good about it?” Dig groaned.

“That you can feel anything at all,” the doctor replied. “Lie down again until I tell you to sit up.”

“Aye, aye, sir.”

The doctor stepped to Lambert's bed, grumbling under his breath.

“Spent years studying space medicine. Come out here and what do I do?” The man shook his head. “Treat stun-ray shootings! Sit up, Lambert.”

Dr. Danvers tapped Lambert's kneecaps, checking his reflexes.

"You're all right. You can go when you feel like it."

"Thanks, Dr. Danvers."

The medical man was already feeling Dig's pulse.

"Fine... fine..." the doctor murmured. "Now sit up and swing your legs over the side of the bed."

The boy did so. Danvers checked his reflexes.

"You're all right, too."

Dig stepped off the bed and picked up his clothes, which were hanging over a chair. He began to dress.

"What happened; Doc?"

"Where?" the doctor asked grumpily.

"The fight..."

"Oh, that? They had the stun-ray guns. We got licked."

Dig finished dressing in silence, then walked out of the hospital room.

The main dome room was crowded. The colonists sat, listless and gloomy, on cots set up along the walls of the room. The broken benches and tables had been cleared away and children were playing in the open space.

Dig paused in the doorway and looked about the room. Jim and Ken were sitting at a table near the window, talking to Fallon in low voices. Daro stood looking out, a bloodstained bandage wrapped around his head.

Dig walked over to them stiffly.

"Hi!"

"Dig!"

Daro turned around, saw him, and grinned. "Hope you feel better than I do, lad."

"I doubt it," the redhead replied, trying to appear cheerful.

Dig sensed the atmosphere of hopelessness. He sat down beside Jim and asked, "What happened?"

"We're locked in here," Jim said. "All the passages have been blocked off."

“Corey-Rowan had ten of his own men here all the time,” Ken said.

“That group of toughs he picked to help him explore the valley,” Daro said. “They were his gang!”

Fallon said, “Corey-Rowan offered all of us a chance to join him. He recruited about twenty spaceworkers. A few colonists, too.”

“But most everybody stuck with us,” Daro said, nodding toward the people.

“Where’s Billy?” Dig asked. “I feel like I’ve been away for a long time.”

Ken smiled. “Here he comes now!”

Billy and old Mrs. Svenson were crossing the room.

“You all right, Dig?” the boy asked.

“Of course he is,” the woman said. “You had no need to worry so much.”

Billy blushed. “Well, gosh! You should have seen how he looked when that stun-ray hit him.”

“Now you take care of yourself,” Martha Svenson said, squeezing Dig’s arm. “Don’t get in the way of those terrible rays again.”

“I’ll try.” Dig grinned. “I’ll step aside if I can.”

The old woman left them after a few more words of advice. Billy squeezed in between Dig and Jim.

“What’s Corey-Rowan been doing?”

“He left for the crater with some of his men,” Fallon told him. “Two days ago. To dig up diamonds.”

“Still gone,” Daro said. “Look what the rest of his boys did.” Dig rose and walked to the window. The *Merchant of Mars* stood with hatches open. Strewn over the ground beneath the ship were piles of plastic containers and crates.

“They dumped everything out,” Daro explained.

Dig looked past the spacefreighter. Men were climbing up wire ladders into the *Starover*, hoisting up plastic bags. Two jeeps stood loaded with more of the bags.

Daro saw the boy looking at the spaceship.

"Aye! They're taking your ship, too," the foreman said. "Those bags are filled with gems."

"The worst thing," Dig cried, pointing to the freighter, "is the food there. It'll be destroyed by the rocket blast when they take off."

Corey-Rowan returned with his men as Jupiter rose over the mountains. The light seemed brighter and Dig wondered at that.

"Say!" he suddenly exclaimed. "There's a sky above! Thin... but the beginnings of a real sky!"

"Aye, the nuclatomizers have been pouring air out steadily, Daro said.

They watched as Corey-Rowan waved his hands, directing his men. Then the geologist turned and approached the airlock. He removed the plasteel bar that was jammed against the outer hatch and entered.

A moment later he appeared inside the main dome, standing at the airlock entrance with his spacehelmet in one hand, a stun-ray gun in the other.

"Fallon!" he called. "Come here. The rest of you stay back."

Fallon stood up wearily and shuffled toward the smiling young man. Dig followed. Jim and Ken did the same. Billy was a step behind them.

Corey-Rowan frowned and aimed his stun-ray at them. "Stand back, your' he cried.

"Go ahead, shoot," Dig challenged the man. "We don't have much chance of surviving, anyway."

"You'd have none at all if it weren't for my men," Corey-Rowan said amiably. For the first time, Dig noticed the cold cruelty in the geologist's face.

"We're not going to let you die," he went on. "I'd do it. But the men won't stand for it. So we're just going to leave you here on Ganymede."

"And just how long do you think it will take the Space Guards to catch up with you?" Jim asked coldly. He began



to feel faintly sick.

"I don't think they ever will. When we get to Mars, we'll report that everyone is dead. An earthquake destroyed the domes and only my men survived. We were out in the fields, working..." The man smiled at Jim. "Space Research isn't likely to send another expedition here for a long, long time."

"But eventually they will, and they'll learn the truth," Ken said angrily. "You'll never get away with this!"

"But by that time," said Corey-Rowan, "I'll have sold my gems, changed my name and appearance, and vanished!"

"Is that all you have to say to us?" Fallon snapped. "If so, you've said it. Now get out of here!"

"You know very well all the people here will die before Space Research comes to Ganymede," Dig said.

"I know it and you know it," Corey-Rowan replied, and smiled again. "My men don't. So they're satisfied."

Dig changed his tone to one of appeal. "Look, Mr. Corey-Rowan, if it's the diamonds you want, take them. Take all you can carry. We don't want them. But if you've got any human feelings at all, don't destroy us... *don't* destroy the colony!"

The geologist laughed in a way that sent shivers down Dig's spine. "I want more than that," he said. "I don't want anyone to know about this place. Not even my trusting friend on Mars who got Billy into this. Thousands of space prospectors would swarm over Ganymede and bring out diamonds by the ton! How valuable would mine be then?"

"They wouldn't be worth the cost of carrying them through space," Dig admitted.

"That's why this must remain a secret until I've sold my diamonds," he said with an icy smile. "And that about finishes what I came to tell you. We'll be blasting off for Mars as soon as the Sun comes up."

He waved them back with his gun and retreated toward the airlock. In a moment he was gone. Hearts

sinking, Fallon and the boys went to the window and silently watched him prop the plasteel bar against the airlock hatch.

"What do you think?" Fallon asked finally, turning to the Space Explorers. "Will Space Research believe him when he reports we're all dead?"

"I don't know," said Jim. "Dad would recognize him. Sergeant Brool would know him, too..."

"He's smart enough to keep out of sight," Dig said. "Someone else will do his talking for him."

"We're on our own here," Ken said. "Our chances of coming through this alive aren't good."

"They don't even exist," Fallon said. "Not a chance in a million!"

He sighed and, head bowed, sat down at the table.

Billy had listened closely to every word, his eyes wide with fear. He began to edge away slowly.

Dig caught the movement and nudged Jim.

"Huh?"

"Billy's up to something," Dig whispered. Jim turned to watch him.

Billy was quietly slipping into Fallon's office. Dig and Jim moved slowly after him. The others were too busy with their gloomy thoughts to pay any attention to the two Space Explorers. Ken and Daro had their heads together, talking.

"I'm worried about the boy," Dig said. "He might do something desperate and foolish."

As they approached the partly open door of Fallon's office, they heard Billy's voice.

"Control dome? Control dome?"

A man's voice came over the loudspeaker.

"Aye. What do ye want?"

"Can I talk to Mr. Corey? ...Can I?"

"Sure, kid. He's right here."

Corey-Rowan's voice could be heard approaching the microphone.

“What do you want?”

“I want to join you, Mr. Corey! Please take me!”

“I thought you and the Space Explorers were pals?” Corey-Rowan sneered.

“Not any more, sir! I don't want to die here! Please! Let me join your men!”

Outside the door, Jim and Dig looked at each other.

“The little spacerat!” Jim muttered angrily. “He's a traitor after all!”

## 20 The Sacrifice

JIM WAS ABOUT TO CHARGE INTO FALLON'S OFFICE when he felt Dig's hand grab his arm.

"Wait!" whispered the redhead.

"What for?" Jim answered vehemently, but in a low tone. "He deserves a good licking for all the things he's done. All the way back to the S.S. *Newton!*"

"Listen!"

Billy's voice continued to plead in the other room. To the Space Explorers the boy's words were like the lashes of a whip.

"Please, Mr. Corey, I don't want to die!"

"Too late! I can't risk your betraying us on Mars. You had your chance!"

They heard the man in the control dome ask, "What be the kid saying about dying, Corey?"

"He's just scared, Sparling. You keep out of this!"

"Mr. Corey, I have a little sister and brother on Mars. They're in an orphanage. I want to take care of them," Billy pleaded. "With the money I can get for some of the diamonds... I can be rich. I wouldn't say anything about what happened here!"

"What's the kid scared for?" they heard Sparling ask.

"Because I don't want to die!" Billy cried.

"I'm not going to have my plans spoiled by this whippersnapper," said Corey-Rowan fiercely. "I've been planning this from the first day I read the Jupiter report Captain Allen sent in!"

"Aye, but that don't answer my question," the man insisted.

"We can't take the kid with us!" Corey-Rowan snarled.

"We joined ye to get diamonds," the man said stubbornly. "Ye promised no one is gonna be hurt!"

"No one will!"

“Ye said them that wants to join us, can!”

“Of course,” Corey-Rowan answered. “But Billy Todd refused.”

“Aye, and now he's changed his mind. The kid's scared! So what's wrong in taking him?”

“Please, Mr. Corey! *Please!*”

A moment of silence was followed by the geologist's grudging, “All right, Billy, we'll take you with us. But you'd better watch your step... or else!”

“Thanks, Mr. Corey... gee! Thanks!”

“Get into your spacesuit and meet me at the airlock.”

“Aye!”

“All right! Smash up the intercom, Sparling!”

“Aye! Aye,” the man replied.

The loudspeaker suddenly went dead.

As he came out, Billy found himself face to face with the two Space Explorers.

He gasped. “You... you... heard?”

The two older boys nodded.

“Everything?” Billy asked.

“Everything,” Dig replied.

“What... what are you going to do?”

“Nothing,” Dig said. “We're not going to stop you. Go and get your spacesuit.”

Billy avoided their eyes.

“We're not blaming you, Billy.”

“Please... don't tell Aunt Martha,” Billy whispered, his voice hoarse. “Not yet, anyway. Not until after the ships blast off.”

“We won't.”

Billy turned and walked away, his feet dragging. When he had gone, Jim and Dig watched him sadly through the window. The boy stood lonely and pathetic in his clumsy spacesuit as Corey-Rowan, having let him out, replaced

the plasteel bar against the hatch.

The two of them walked slowly toward the control dome at the far end of the row of buildings.

"I feel awful," Jim said. "My insides are all twisted, like falling through space."

Dig stared at the empty clearing in the center of the colony. In the distance, the mutineers were loading the last of the plastic bags into the spaceships.

"Why did he do it?" Jim asked, still stunned and unable to understand. "Why?"

"Maybe he'll do something to help us when he gets to Mars," Dig said. "Maybe he'll get in touch with the Space Guards and tell them what really happened here...."

"You've got a lot of faith in Billy!"

Dig sighed. "Maybe I have," he said softly. "Maybe I have..."

\* \* \*

In the control dome, meanwhile, Billy Todd was taking off his spacesuit at Corey-Rowan's command.

"You understand, Billy," the man was saying, "I must be careful. You might have some ideas of saving your friends."

"Mr. Corey, I just want to save myself!"

"Call me Corey-Rowan," the geologist insisted stiffly. "That's my name."

"Aye, sir."

"I'm going to make sure you won't try any tricks."

Billy handed the spacesuit over to the man. Corey-Rowan tossed it to the spaceworker. "Take care of this," he said. Turning back to the boy, he continued. "You'll stay here until we're ready to blast off."

"You... you won't leave me behind?"

The geologist nodded toward the man with him. "He'll see to it that you're not left behind. All right?"

"Yes, sir!"

Corey-Rowan walked into the airlock.

The spaceworker placed a rough hand on Billy's head.

"Ye stay here like he says and get some sleep, lad. I'll bring your spacesuit to ye at sunup."

"Aye, sir."

The spaceworker followed Corey-Rowan into the airlock and closed the hatch. A moment later they were striding across the clearing toward the *Starover*.

Billy watched them through the glassteel window. They climbed the wire ladder and disappeared into the ship.

Billy did not lie down to sleep. Instead, he sat down on the floor and rested his back against the wall. He sat quietly for a long time thinking... remembering the hurt in the eyes of his Space Explorer friends.

When he finally moved, he had come to a decision. He crouched under the window and peered cautiously out. A few guards were standing in a group a good distance away, near the *Merchant of Mars*. The clearing by the domes was empty.

Billy dropped back to the floor and crawled toward the airlock. He opened the hatch part way and squeezed inside, shutting it carefully behind him.

He did not start the air pumps. Instead, he rose to his feet and began to breathe deeply and slowly, in and out, in and out.

Fearfully he grasped the handle of the outer hatch. Taking a last deep breath, Billy pushed the hatch open and leaped out. Crouching, he ran along the wall to the main dome.

He held his breath as long as he could, then gasped for air. His mind was fuzzy as he staggered toward the plasteel bar jammed against the outer hatch of the main dome.

Somehow he managed to mock it down. He swayed dizzily and tried to shout. He pounded on the hatch in desperation. He stumbled to the window and beat it with his fists, not realizing it was soundproof and no one

within could hear him.

He turned and staggered back to the hatch. With his last strength he tried to open it... and failed.

He fell on his face and lay still.

\* \* \*

Inside the main dome, Jim had heard the faint vibration of Billy's pounding.

He called to Dig. "Do you hear anything?"

Dig looked up and shook his head.

The next instant the two Space Explorers were astounded to see Billy's face at the window.

"Billy!" Dig cried, leaping to his feet.

Jim was already racing for the airlock, with Dig after him. The redhead reached it just as Jim opened the inner hatch.

"Open the outer one!" Dig cried.

Jim tore frantically at the handle, shouting, "How did Billy get there without a spacesuit?"

"Hurry! Hurry!"

Jim pushed and the hatch opened. Dig came after him, grabbed the boy under the arms, and dragged him into the airlock. Jim closed the hatch behind them. Then he dropped to his knees and felt the boy's pulse.

"He's alive," Jim said.

They opened the inner hatch and pulled Billy out of the air lock. A little group was waiting by the hatch. Daro picked up the boy in his arms.

"What happened?" he asked. "How'd he get out?"

"Take him to the hospital!" someone shouted.

"Aye!" Daro replied. He turned and ran, with Billy in his arms.

A cry went up, "The mutineers are coming!"

Dig called frantically to Jim. "Billy took the bar away I We can get out!"



“What can we do out there?” Jim asked. “There’s hardly any air.”

But the red-haired boy was not listening. He went into the airlock. “Close the hatch!” he called over his shoulder.

Instead, Jim leaped into the airlock after the redhead. “I’m going with you!”

Ken pushed in behind his brother, pulled the hatch closed, and turned to the other two boys.

“Where are you going?” he asked. “And without spacesuits!”

“I’m going to make a run for the *Starover*,” Dig explained hurriedly. “There’s no time to get a spacesuit now. The mutineers will be here any minute.”

“What are you going to do there?” Jim asked.

“Send a message off, or lock myself inside the control cabin!” Dig pushed open the outer hatch of the airlock and leaped out.

He crouched low and looked about him quickly, then sprinted along the side of the dome. Jim and Ken ran close at his heels.

Suddenly shots spurted against the ground, raising little geysers of dirt around their feet. They could hear the sharp hiss of the stun-rays.

“There’s... enough... air to... carry sound!” Dig gasped in amazement.

“They’ve seen us! We’ll never make it to the *Starover*!” Jim rasped. “What’ll... we do?”

Dig stopped, fighting to catch his breath. His eyes swept over the row of buildings frantically. The airlock of one of the domes was near. He grasped the handle and tried to open the hatch. It was locked.

“The control dome... Billy... came out... of there!” Ken said, his chest heaving violently with the effort to breathe. “Maybe that one... is open!”

Dig turned and ran for the last dome in the row of buildings. The outer hatch was open. Dizzy and gasping, he staggered through the open hatch and dropped weakly

to his knees.

Ken paused at the door and pushed his brother in ahead of him. Then he stumbled inside and pulled the outer hatch shut, locking it. The pumps whirled and the air pressure began to build up immediately.

The three boys sprawled on the floor, gulping in the fresh air. After a while, when they had recovered their strength, they rose shakily to their feet.

"Well, we made it," Jim said. "But what good is it? What can we do here?"

Dig did not reply. He pushed open the inner hatch and went into the control dome. Jim and Ken stumbled in after him. They could still feel the painful effects of the thin atmosphere outside.

Mutineers stood at the window, staring at the Space Explorers in amazement. One of the men shook his head and scowled at them.

"He thinks we're crazy to do what we did," Jim said, trying to smile in spite of the pain creeping over his body. "And you know what? I agree with him!"

A mutineer jammed a plasteel bar against the airlock hatch. The boys looked down the row of buildings. The hatch of the main dome's airlock was also barred.

"Well, we've exchanged one prison for another," Jim said.

"But this one has no food or water," Ken added glumly.

## 21 The Secret Weapon

SMASHED EQUIPMENT LIITERED THE FLOOR OF THE control dome. Dig kicked some of it aside as he crossed the room to the cabinet which contained the control instruments for the nuclatomizers.

He studied the rows of switches and dials, then said quietly, "At least they didn't break this up. There's hope as long as the nucla machines are in working order."

"Without food or water?" Jim complained. "How long do you think we can last trapped inside this little dome?"

Dig did not reply. He began to paw among a pile of books scattered on the floor.

Ken searched through his pockets and the pouches of his spacebelt. "I've got two bars of food concentrate and a plastube of chocomilk. How about you?"

Dig looked up, checked his emergency kit, and said, "I've got the same."

"Me too," Jim said. "Maybe we can stretch it for a couple of days."

"As soon as the mutineers blast off," Ken said thoughtfully, "Fallon and the others will try to break out of the dome. They're not going to sit around waiting to die."

"Neither are we," said Dig.

"You... you've got something in mind?" Jim asked.

"No, not yet. But at least we have some time to think of something."

Ken frowned. "I've been racking my brains trying to get some ideas. It's just no use."

Jim walked about the small room, kicking angrily at the litter on the floor. "Books, reading tapes, instruction manuals..." he called out as he waded through the pile of wreckage. "And broken electronic tubes..."

Dig's eyes lighted on one of the books carelessly pushed aside by the tall boy. He stopped and picked it up.

It was an old chemistry textbook.

"What's that?" Jim asked.

Dig shrugged. "An old book." He flipped the pages casually. Suddenly he began to read.

"Got an idea?" Ken asked hopefully.

"I don't know..." Dig replied. "Let me do a little thinking..."

With his foot, he pushed aside some of the wreckage on the floor, then sat down in the cleared space and leaned his back against the nucla control cabinet.

"There's not much time left," Jim pointed out. "Jupiter is already beginning to sink down toward the mountains. They're blasting off as soon as the Sun comes up."

"I know," Dig said, and buried his nose in the pages of the chemistry text he had picked up.

"I wish we had a radicom," Jim said, looking out of the window. "Corey-Rowan is having an argument with some of his men."

Ken joined his brother at the window. The blond boy observed the scene outside closely.

"A fight among them might be our best chance..."

Corey-Rowan, with the tall figure of Briggs beside him, was facing two men. He was angrily gesturing with his hands, waving a threatening fist at the spacehelmet of one of the men.

"Something's up!" Jim exclaimed as the mutineer slapped aside Corey-Rowan's fist.

The next instant Briggs leaped at their opponent and ripped the power batteries from the man's spacebelt. The geologist whipped out a stun-ray gun and pointed it at the second man.

"Now what?" Ken asked, puzzled.

The two men were being marched toward the control dome airlock. Briggs hurried ahead and opened the outer hatch. He followed them inside and closed the hatch. A moment later the two men, without their spacesuits, were thrust into the control dome.

The hatch was shut again quickly. Ken looked through the window and saw Briggs come out, carrying the two spacesuits. The plasteel bar was again securely jammed against the hatch.

"Well, now we've got company," Jim said with a sad attempt at humor. He looked at the two men. They were typical spaceworkers, hard and reckless. He recognized one of them. "You're Malcolm, aren't you? I've seen you around."

"I've been around," the man replied gruffly. He jerked a thick thumb at his companion. "This be Sparling, my spacebuddy."

"Welcome," Jim said. "Can't say joining us now is going to do you any good."

"Aye, we know that," Sparling said. "But killing people be not the kind of work we do."

"Ah! You've found out what Corey-Rowan is planning!" Jim said. He ran his fingers nervously through his hair. "Too bad it took you so long!"

"I be the one that was to look after Billy," Sparling said.

"Me and my buddy figured that if the boy was risking his life to save ye, then that geologist must have been hiding something from us! So we asked him straight out."

"We asked if he was going to let the colonists die!"

"So he tossed you in here with us!" Ken said.

"Aye," Malcolm said. "We wanted diamonds and the easy life they would bring us. That's why we joined him. He promised no one was going to be hurt."

"Most of the men feel the same way we do," Sparling added.

"Oh, sure," Jim said. "You're all fine honest men! Oh, sure!"

"We be that!" Sparling retorted angrily. "We be honest in our own way! Maybe less than some and maybe more than others!"

At this, Dig, sitting quietly on the floor, looked up from

the pages of the book he was holding, grinning wryly.

“So the mutineers want diamonds,” he said.

The two spaceworkers turned and looked at him.

“Aye, that be all.”

“I think I can give them diamonds,” the red-headed boy said slowly. “So many that they won't want to look at a diamond again so long as they live!”

His words were met with astounded silence. But Jim and Ken drew closer to Dig, and behind them the two spaceworkers paid close attention.

“I've got an idea,” Dig continued. “This talk about diamonds... we may be able to turn it to our advantage.”

“How?” Jim asked tensely.

“They were willing to mutiny... to turn space outlaws for the sake of diamonds.”

“Aye, their good sense deserted them when they saw the chance for easy riches,” Sparling said. “Mine too. We sort of went a little spacecrazy.”

“But what if they find that the diamonds aren't worth all this trouble? Not worth becoming outlaws for...”

Jim shook his head. “Try and convince them of that! We're trapped in here, and you couldn't talk to them even if they were willing to listen!”

“There's another way of sending the message to them!”

“How?”

“Let the nuclatomizer start making diamonds and pouring them out like water!”

“You can't make diamonds...”

“Why not? What are diamonds made of?”

Jim scratched his head thoughtfully. “Carbon,” he said.

“That's right. And the nucla machines can make pure carbon. Maybe they can make diamonds!”

Ken shook his head. “Diamonds are carbon all right. But carbon is turned into diamonds under tremendous

heat and pressure.”

“Can the nuclatomizers do that?” Jim asked.

“I don't know,” Dig replied. He stood up and brushed tiny pieces of glass from his trousers. “But Fallon might know.”

“Fallon happens to be in the main dome,” Jim said. “So we can't ask him.”

“We can try,” Dig said. He walked to the panel of communication controls.

“Ye won't be able to fix that,” Sparling said. “Besides, I ripped out and smashed the microphone. Even if the wire connections be good, there's no microphone.”

“Which are the wires leading to the main dome?” Dig asked.

Sparling pointed to the tips of two wires sticking out of a circular hole in the wall. “These be them.”

Dig laid aside the book he had been reading and picked up the loose wires. He tapped the two bare ends against each other.

“Would they hear this as a sound on the loudspeaker?” he asked as a tiny spark leaped across the tips of the wires.

“Sure!” Jim cried. “Like a crack of static!”

“That's what I thought,” the redhead said, and he began to tap out a code message. “I hope someone in there will recognize the ancient Morse code!”

“Most spaceworkers do,” Malcolm said, smiling. “We often use it as a sort of secret code among ourselves.”

Dig repeated the same message over and over again.

“Calling... Fallon... calling.... Fallon... calling... Fallon...”

For what seemed a never-ending age, he continued to repeat the message. Just as he was ready to accept defeat, they heard the click of a switch and a loud, puzzled voice over the loudspeaker.

“I tell ye, Daro, that be the code! Someone's asking for

the Chief!”

“Go get him!” Daro said.

“Daro... this... is... Dig. We... can... hear... you... on... speaker.”

“Where be you, lad?” the foreman asked, surprised to decode his own name.

“Control... dome...”

A moment later they heard Daro inform Fallon of their call.

“Are you all right, boys?” the engineer asked anxiously.

Dig ignored his question.

“Want... to... make... carbon... under... great... pressure... and... heat... How?”

“Carbon under heat and pressure?” Fallon repeated, astonished.

Dig tapped out, “How... hurry...”

“Pure carbon?” Fallon hesitated, then continued. Use the nuclatomizer making water. That would be the easiest one t work with. All you have to do is shut it off. Then flip on the switch marked C.”

Dig turned to Ken. “Go ahead.”

“Aye, aye!” The blond boy stepped to the nucla control panel and flipped several switches. “H<sub>2</sub>O shut off! C turned on!”

Dig began to tap another question.

“How... raise... heat... pressure?”

There was a long silence at the other end. Impatiently, Dig again began to send a message through the wires.

“How... did... you... make... liquid... oxygen...?”

“How much pressure and heat do you want?” Fallon's voice asked.

Dig turned to Jim. “The book! Give it to me, Jim!”

The boy handed it to him. Dig flipped through the pages quickly, found the place he wanted, and laid the



book open on the control cabinet.

“Pressure... above... million... pounds...”

There was a startled whistle from the loudspeaker.

“... heat... between... 2,200... and 4,400 ... degrees...”

“So that's what you're up to,” Fallon cried. “All right. Listen carefully! Under the control panel there are wires. They're coded by color. Pressure wires are black. Heat wires are red. Rip the red and black wires away from the others and splice all the heat wires to the carbon element unit. Do the same thing with the pressure wires!”

Dig dropped the communicator wires and leaped to the cabinet. In a few seconds he had opened the back panel and crawled inside.

Jim picked up the wires and tapped out a message.

“Will... it... make... diamonds?”

“I don't know,” Fallon replied. “It should. After all, diamonds are nothing but carbon-and the nuclatomizer can make carbon! But will it? That's something else! It may build up so much heat the nuclatomizer will melt. Or the pressure might blow the machine into atoms!”

“How... long... will it... take...?”

“I don't know!” Fallon cried in a despairing voice. “The nuclatomizer was never intended to make diamonds!”

They waited in uneasy silence until Dig backed out from under the cabinet. He looked at the tense, staring faces around him.

“It's ready,” he said quietly.

The two mutineer guards paced back and forth outside. Occasionally they glanced through the window at the group inside the dome, but without curiosity. With more interest, they watched Jupiter begin to sink below the tips of the towering peaks.

“We've only got about two hours till they blast off,” Dig told his friends.

“Did *you* hear what Fallon said?” Jim asked, his face pale. “This could blow up the nucla machines.”

"I heard. What would *you* want me to do?"

Jim looked at his brother uneasily. "We're doomed to a slow death anyway once the mutineers leave," he said. "Do we have a choice?"

"Fallon knows what you're doing," Ken said. "He didn't try to stop *you*. I say go ahead!"

Dig's eyes swept over the faces around him. Each nodded quickly in agreement as he caught the red-haired boy's look. Dig reached *out* and flicked the power switch to "On." A humming sound filled the room.

"Our secret weapon," he said softly, as he turned to look through the window.

Jim asked, "The nuclatomizer?"

"No," his friend replied. "Our secret weapon is the mutineers' greed!"

"Wait!" Jim suddenly cried. "The instrument panel... it looks like the nuclatomizer may blow up before it has a *chance* to make diamonds!"

On the instrument panel a red blinker light was flashing a danger signal. Then they heard a rumble, as if from deep underground, which seemed to grow louder with each passing second.

"What... what is it?" Malcolm asked, his weather-beaten face drained of color.

"I think the pressure is building up," Dig replied. "Do you smell anything strange?" He sniffed and began to look about him, his keen gray eyes searching the room. There was a sharp odor of burning.

Dig stepped to the cabinet and opened the door to look inside at the complicated mass of wiring.

A thick cloud of acrid smoke poured out, making him gasp for breath.

## 22 The Real Treasure

IN A MOMENT, THE CONTROL DOME WAS THICK WITH smoke spiraling upward toward the ventilation ducts.

“Back everybody!” Dig cried. “Into the airlock!”

As the others retreated, the redhead dropped to the floor and began to crawl cautiously back to the cabinet. The smoke was being drawn upward, giving Dig a small layer of clear air close to the floor.

He reached the open cabinet and quickly pulled away several of the wires, breaking the electrical circuit. The smoke died down, and within a few minutes the air conditioners had cleared the room.

Jim and Ken came out of the airlock and looked over Dig's shoulder.

“Too much heat,” Jim said. “That about ends your idea.”

“I don't think it does,” his friend replied, staring into the cabinet. “The nucla machines themselves didn't melt from the heat. There was just too much current for some of the wires to carry.”

“How can you get around that?” Ken said. “Hey! Could we use a few more wires to help carry the electrical load?”

“I think so.”

From the pile of rubbish on the floor, Jim and Ken selected several loose wires and quickly spliced them together. Dig fixed them into the nucla machine control panel.

“Now the current will be less on each wire,” he said. “That may do it!”

“I hope so,” Ken murmured under his breath.

“Well, shall we try it?” Dig asked. As his companions nodded approval, Dig cautiously re-activated the nucla machine.

Hardly daring to breathe, the small group in the control room waited for the reaction. Seconds passed, and then the rumblings began again. Small tremors shook

the ground beneath their feet.

"That noise is fainter this time!" Ken cried. "Do you think it's working, Dig?"

"The calm before the storm," Jim said, smiling weakly.

\* \* \*

Darkness settled over the valley as the huge shape of Jupiter sank behind the high mountains. Inside the control dome there was a tense quiet.

The three Space Explorers stood by the window looking out. Beneath their feet the ground continued to tremble. The black mysterious shapes of the four nuclatomizers loomed in the shadows.

Sparling and Malcolm, to take their minds off the waiting, began to clean up the little room, sweeping the dust into a pile in one corner. Their faces were hard masks, hiding their fears.

Even the voices from the main dome became silent. Once, Fallon had spoken over the loudspeaker to ask what was happening. Jim sent a message telling him what Dig had done. After that, nothing more. The entire colony seemed to be awaiting the outcome of the experiment.

With the first rays of the Sun on the mountain peaks, the mutineer guards approached the window. They looked in with sad, shamed expressions on their faces. Then they turned, apparently in response to instructions over their radicom, and headed toward the *Merchant of Mars*.

They paused at the nuclatomizers, appearing to notice nothing unusual, and waited for the guards at the main dome to join them. Those turned and looked back at the great horseshoe as if reluctant to leave. Then the group started for the spaceship.

Suddenly a mutineer stopped and looked again at one of the nuclatomizers.

Hardly daring to breathe, Dig whispered softly, "That's the one! That's the one!"

"Are there diamonds there?" Jim asked.

Malcolm and Sparling joined them at the window.

“Wait...” Dig said hoarsely.

Cautiously the mutineer approached the nuclatomizer, staring at the ground near the machine's exhaust opening. The other three had walked on, but now they too stopped. “Oh, for a radicom so we could hear what they're saying!” Jim said.

“Look at them!” Ken said. “They're going to the nuclatomizer! They've seen something!” He turned suddenly to look into Dig's tense face. “It must have worked, Dig! It must have!”

A mutineer picked up something from the ground and showed it excitedly to his companions. The next moment, all four were splashing through the mud before the machine, picking diamonds from the ground.

The boys gasped at the sight of one of these. It was the size of his gloved fist!

“There's our secret weapon! Their greed!” Dig said. “They can't resist stopping to pick up more... and more and more! Especially since they don't have to work to get them! And if the rest of the mutineers hear them over the radicom, our plan has a good chance of working!”

A figure appeared from the airlock of the *Starover* and began to climb down the wire ladder. Another came behind him. Soon men were scrambling wildly down from both spaceships, plastic bags slung over their shoulders.

“Look at them!” Sparling exclaimed, contempt in his voice. “I be one like them before!”

“Those diamonds must be bigger than the ones we dug out of the mountains,” said Malcolm. “

You can have all you want when-and if-we get out of this,” Dig smiled. “That is, if you still want any at all.”

Sparling shook his head. “I'll not be wanting them now. Look!” He pointed to the mutineers. “They be mad!”

In front of the nuclatomizer, the mutineers were fighting and pushing to get at the diamonds. Wading through the mud, slipping, sliding, splashing-they filled their pockets and bags with diamonds.

Then Corey-Rowan appeared with Briggs at his side. Through his frantic gestures, the boys guessed that he

was pleading with his men. When the mutineers paid no attention to him, the geologist forced his way among them and tried to drive them back to the spaceships.

But they would not listen to their leader. They pushed him roughly out of their way, and Corey-Rowan staggered clear of the crowd. In his hand he held a diamond the size of an ostrich egg.

For a moment he stood there undecided. Then he squared his shoulders and walked away. The Space Explorers lost sight of him in the crowd.

Some of the men were moving away from the nucla machine, spilling diamonds from their overloaded pockets and bags. One man, covered with mud, staggered crazily toward the control dome.

Pressing his spacehelmet to the window, he grinned at the Space Explorers, then kicked aside the plasteel bar at the hatch and entered the airlock.

He came through into the control dome some seconds later laughing foolishly.

"Here ye be! Maties, I've brought ye diamonds, too!" he roared as he dumped his plastic bag to the floor.

"What's happened to him?" Jim asked, astonished.

"Greed," Dig replied. "He's drunk with greed!"

"Ye need not stay here," the mutineer shouted to Sparling and Malcolm. "Come back! We've diamonds worth more than we can ever spend!"

Ken had remained at the window. Now he turned to Dig and whispered, "Corey-Rowan is going to the *Starover*. I think he's going to blast off by himself!"

"It won't matter," Jim said, happily. "We'll use the videoscope of the other ship to call the Space Guards."

"Yes, and what if he comes back to blast it with the *Starover's* propelling rockets?" Dig said.

He turned and slowly approached the mutineer.

"Let me have your spacesuit for a while," he suggested.

"Ha!" The mutineer looked about him, frightened. "I come to rescue Sparling and Malcolm. Not ye!"

But at that moment Sparling stepped forward and swung his fist with all his might. It caught the mutineer on the point of his chin and dropped him unconscious to the floor.

“Here be the spacesuit for ye, lad,” Sparling said, stripping the mutineer's limp figure.

Dig quickly put on the spacesuit.

“Where are you going?” asked Ken.

“To stop Corey-Rowan before he gets away!”

Adjusting his spacehelmet, Dig went into the airlock. A moment later he was outside and running with all his might after the leader of the mutiny.

Corey-Rowan, some distance away, was walking slowly, trying not to attract attention. Dig fumbled at his spacebelt for the stun-ray gun the mutineer had carried.

Then, setting the gun for a mild charge, he knelt quickly and took careful aim. The first shot missed. The second caught the geologist across the knees and he dropped to the ground.

Dig paused and looked about him. The mutineers were still too excited to pay any attention to him. The boy turned and casually strolled to the main dome.

Fallon, Daro, and several of their men were already dressed in spacesuits when Dig slipped into the airlock.

“Good work, lad,” Daro grinned. “We watched ye through the window.”

“You know what to do,” Fallon said to his men. “Take over quietly.”

They slipped outside and under Daro's and Fallon's leadership began to disarm the mutineers.

Corey-Rowan was dragged into the control dome, where his spacesuit was taken off. Conscious, but in pain, the geologist looked up at the Space Explorers.

“I'm licked,” he moaned through clenched teeth. His eyes blazed angrily.

“The diamonds be not worth much,” Malcolm said, dropping to his knees to run his fingers over the diamonds scattered on the floor.

"With the nucla machines able to produce them by the carload," Ken said, "diamonds won't be worth the cost of space transportation. "

Dig turned to the stocky, blond boy. "Ken, take his suit. Go on board the *Starover* and call the Space Guards."

"Aye, aye, sir!" the boy replied cheerfully.

When he had left, Sparling turned to Dig.

"What's going to happen to me and my spacebuddy?"

"That's for Fallon to decide. Corey-Rowan, Briggs, and a few of the others will face trial by the World Council."

"Will ye put in a good word for me and Malcolm?" Sparling asked.

"Aye, I certainly will," Dig said. "Without your help, Corey-Rowan would have gotten away. Come on—let's get over to the main dome."

"Of course they'll get another chance!" Fallon shouted in answer to Dig's question. "We need men to build this colony, Daro!"

"Aye, Chief?" The stocky, bald-headed spaceworker was grinning as he ran up to the engineer.

"We've got work to do!" Fallon cried. "Give every man a job! Mutineers, too!"

"Aye, Chief!"

"Corey-Rowan and Briggs will be locked up!"

"That suits me fine!" Daro chuckled.

"Then why are you standing there grinning like a Venusian monkey? Get to work. Start by getting that food picked up. We can't afford to waste it!"

"Aye, sir!" The powerful little man was all smiles as he stumped off. Fallon scowled at the Space Explorers.

"I've got to shut that nuclatomizer off and set it back to making water. We don't need diamonds here!"

"I'm sorry, sir," Dig laughed. "Forgot to do it!"



Fallon grinned, his eyes lighting up. "That's understandable, Dig. You boys had a few other things to worry about. But don't let it happen again!" Chuckling, the engineer left them.

Dig grinned at Ken. "Come on," he said. "We've got someone to see."

The two boys found Jim at the door of Billy's hospital room, arguing with the doctor. Seeing them approach, Jim turned to his friends for help.

"He won't let me in to see Billy," he complained.

"How is Billy?" Dig asked the doctor.

"Shock from low atmospheric pressure. I put him into a two week sleep-rest. He'll be all right when he wakes up," the doctor answered. "There's no point trying to see him now. Come back later."

"Aye, sir."

As they left the hospital, Dig turned to Jim and asked, "How about the message to the Space Guards? Did you get through?"

"Oh, I got through to Eros all right. Sergeant Brool and one of his men are starting out immediately."

"Good," Dig said. "Now, let's get to work!"

\* \* \*

A spirit of enthusiasm swept through the colony during the days that followed. The men worked furiously to repair the damage and make up for lost time. Among the hardest workers were the former mutineers, grateful for getting another chance. When the Patrol Ship *Galahad* finally landed two weeks later, the atmospheric pressure had reached the pressure level on Mars.

The sergeant climbed down from his ship, followed by Guardsman Peter Mattila. The three Space Explorers were waiting to greet them, and no one needed a spacesuit.

"Where's all the trouble?" Sergeant Brool asked.

"What trouble, Sarge?" Jim said, pretending to be surprised by the question. "Is there supposed to be trouble, sir?"

"But we had reports," Guardsman Mattila said.

"Oh, you mustn't believe everything you hear," Ken assured the young Guardsman.

Dig grinned so hard that the freckles on his nose seemed to dance. "You never can tell, can you, what signals got mixed on the way!"

Guardsman Mattila turned to the sergeant, completely bewildered.

Seeing the expression on the rookie's face, Sergeant Brool clapped him on the shoulder.

"They're a bunch of mischievous space imps! Report to the office and take charge of the prisoners, Pete."

He turned to the Space Explorers. "Before I forget, a queer fellow I met sent you a message," he said. "Wouldn't tell me his name. Just told me to say, 'A footloose Earthworm sends his best regards.' Said his ship would be here before you leave Ganymede."

Dig laughed. "Good old Jocko. We'll be glad to see him!"

Sergeant Brool took a deep breath. "Air seems better here than on Mars. How about showing me around the colony?"

"In just a minute, Sarge," Dig said. "We're waiting for someone to join us."

The three boys watched the exit from the main dome until Mrs. Svenson appeared, supporting Billy Todd.

"Jim! Dig! Ken!" the boy cried as he ran to greet them.

He gave each a hug, looking happier than ever before.

"Everything's all right now, Billy," Dig said to him gently. "We're going to bring your brother and sister from Mars here soon."

"So this is Billy Todd," Sergeant Brool said, shaking hands with the boy. "Well, lad, I'm mighty pleased to meet you."

"We've got a rocket-jeep, Billy," Jim said. "Want to come with us and show Sarge around the valley!"

They all piled in and Ken started the engine.

“Wait!”

It was Mrs. Svenson. Smiling, she handed Billy the plastic bag of seeds. “You mustn’t forget this,” she said. She waved good-bye, a smile on her gentle face, as they *drove* away.

“Where are we going?”

“Clear to the other end, Billy,” Jim said.

“What’s down there?”

“You’ll see,” Jim replied. “*You’ve* been sleeping for two weeks. Lots of things have changed during that time.”

“I know one thing that’s changed,” Billy said, sniffing the fresh air. “And I like it a lot.”

The road had been extended through the valley and they drove rapidly over the smoothed ground. Far in the distance, they could see tractors busy plowing.

Billy turned to look back. The *massive* black shapes of the nuclatomizers were toy-like now and far away, marking the site of the colony. As they *drove*, they explained to the sergeant the plans for the valley.

“It’s warm here,” the Guardsman said. “How’s that? By all reports it shouldn’t be.”

“Electric wires are laid under the ground,” Ken explained. “The nuclatomizers create a lot of electrical energy which is run through the wires.”

“An electrical heating system?”

“Something like that.”

Part of the earth thrown back by the explosions to fill the gap in the mountains had formed a hill, which now had a crude road up it. They drove to the top, where Ken stopped the jeep and they looked out across the Ganymede landscape.

It was not yet an altogether attractive view-the ground was still dark and bare. But down the middle of the valley a stream now wound. Near the hill it flowed into a gleaming lake.

“The crater’s filled in, Billy,” Dig said, pointing to the light, clear water. “That’s your lake. We’ve named it Todd Lake!”

“Gosh!” Billy's eyes were bright as he looked out over the water. “Maybe we'll get fishes from Earth and put them in, and some willow shoots to set along the edge of the water, and...” Billy stopped, his eyes full of his dream.

“Someday,” Ken promised.

The sergeant shook his head slowly from side to side, as though he couldn't believe what he saw.

“I've sailed the deeps of space most of my life,” the veteran Guardsman said. “But such things I never dreamed I'd see. The nuclatomizer doing all this!” The Guardsman waved his hand. “And water to make a lake! Aye, we live in an age of wonders.”

Ken started the rocket-jeep and they rolled down the hill to the lake. He swung the little car off the road so that they traveled along the sloping shore for a short distance, and then stopped to look.

“So many things the nuclatomizer can do,” the sergeant murmured.

Jim smiled proudly. “The nuclatomizer may someday be able to make almost anything!”

“I know something it'll *never* make!” Billy said, his face glowing with happiness. “Something all the nucla machines in the Solar System will never make. Not if they run for a million years!”

“Really?” Sergeant Brool asked, smiling. “What's that?”

“Come on, I'll show you!”

The Space Explorers and the sergeant leaped lightly out of the jeep and followed the excited boy across the damp soil to the edge of the lake.

“There!” Billy cried, pointing to the ground.

“What is it, Billy?” Dig asked.

“See for yourselves!” Billy said, holding his bag of seeds clutched to his breast.

The Space Explorers and the old Guardsman bent over and stared at the ground.

A tiny green plant was breaking through the loose soil!



**THE END.**