

In the Spacesphere

by Charles Cloukey, 1912-1931

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Chapter I

VIC VINCENNES' metallic voice tautened. He seemed to stare at the emerald-green Earth through the heavy quartzinite window of the sphereflyer.

"Without seeming to do so," he said, "notice the couple at the next table."

"I have done so." said the solemn Bradley Culbertson. "Kee Scarna, daughter of the present Planetchief of Mars, is with a certain Venusian aristocrat known as Grun Mahu."

"Well?" said the herculean Dick Dubrocq.

"Their waiter just put some Martian venn in her glass. Looked like ten grains to me, and two grains is enough to kill a Martian who hasn't the habit. He didn't put any in Mahu's glass. Looks like deliberate murder to me."

Dubrocq swung around in his chair. He saw the slender Martian princess lifting a thin glass of a sparkling red synthalcolic wine to her lips. She had not seen the motion the waiter had made as he lifted the glasses from his tray.

The giant Dubrocq, in spite of his six foot six, possessed perfect muscular coordination. Silently he left his chair, leaped the short distance to the next table, and with the neatest of precision flicked the glass out of the Martian girl's hand. He saw her cool grey eyes, startled for a moment, regain their composure, and he observed that three little Martians were covering him with radium pistols, the most deadly small arm of the universe. Her bodyguard, of course, was always near her.

The giant Earthman was ill at ease. The little princess, cool in her evening gown of blue and silver, wearing the insignia of her imperial father on the shoulder band of her metallic silver gravity-harness, was waiting for an explanation. Grun Mahu, scowling a little, rose to his feet.

The girl's bodyguards moved closer, waiting for an explan-word to kill the giant. Diners at the nearby tables were watching breathlessly. The waiter took advantage of the moment to hurry away. Dick realized a few seconds too late that he should not have escaped. He tried to say something, but the suave voice of Vic Vincennes interrupted.

"You might tell your guards to lower their pistols, Kee Scarna. My friend has just saved your life. He always acts impulsively. Your waiter put at least ten grains of vena into your wine—"

Grun Mahu interrupted. "Nonsense. Why should anyone want to poison the daughter of—"

His eyes gleamed strangely. The pupils contracted to glittering pinpoints. Venn!

"Fool that I am," muttered Bradley Culbertson. The Venusian aristocrat crumpled up absurdly on the floor. Brad motioned to another waiter that was near. "Get Doctor Kunzie! Vic, boy, I thought you were wrong. The drug was in his wine, not hers. I was about to correct you, but you seemed so sure. I saw that waiter too."

Kunzie, ship's doctor of the COSMONIA, arrived with a pair of orderlies and a stretcher. Efficiently they removed the sprawled body of the Venusian. Doctor Kunzie took one look at his eyes. "An overdose of venn. He'll never live. I wonder how the narcotic was smuggled onto the ship."

Kee Scarna was very cool. She looked Dick Dubrocq frankly in the eyes. "I do appreciate ze good intentions zat you have had," she said, and motioned to her guards, who sheathed their pistols. An orderly approached. "Doctor Kunzie should like to see you three gentlemen at once in the infirmary."

"Right," said Vic Vincennes.

CAPTAIN SOUTH, commander of the spacesphere COSMONIA, was in earnest conversation with the doctor as Vic and Dick and Brad entered his office. Doctor Kunzie led them into the next room, and Captain South followed. Grun Mahu was conscious, his pupils still unnaturally contracted. He had not seen them enter, but sensed their presence. He spoke, each word a conscious effort.

"The doctor tells me that I'm done—that I'll go into the final stupor before long—you see, I was—what you call—double-crossed. The red dust of Mars! Venn—hellish stuff, but there's money in it—I was going to try to grow some on Venus—the venn-plant, I mean—you can grow anything in the Hot Lands. But if I'm going to blank out—I have something almost like a conscience—I should be stamped out. I'm not afraid to die—not trying to make my peace—not a coward—not afraid to die—but—"

His voice died away, but in a minute he seemed to rouse himself. Grun Mahu was an aristocrat of Venus.

"There's a ring—on this flyer—smugglers. They'll stop at nothing—murder—piracy—you see, there's money in it. I was one of them, but—I started to think what a cad I was—wreck other people's lives—and—they double-crossed me. Wait—I'll tell you—Tja Narro, Martian devil, is one of them—and Harburton Smithers, and the leader is—"

It was seven minutes before he roused himself again, for the last time. "Not—afraid to die—The leader is—is—"

Silence.

"I am absolutely certain," said Captain South, "that every passenger, all luggage, and every bit of cargo was carefully examined with XX-rays before we left the Earth, no trace of venn being found."

"Then, Captain, you must be mistaken," said the solemn Brad Culbertson.

"The inspectors at New York are conscientious and incorruptible. The Council of Planets is more determined than ever to stamp out this murderous drug traffic. Yet it is obvious that that waiter obtained the drug somewhere on board this vessel. There is one possibility, but—"

"What is it?"

An orderly entered. "Well?" said the Captain.

"Sir, one of the waiters has just been found dead. Someone shot him."

"I'll attend to the matter at once," said Doctor Kunzie, and hurried out. Captain South swore softly.

"Quick work," said Vic Vincennes dryly.

"You were saying, sir," continued the imperturbable Brad, "that there was one possibility."

"The imperial Martian party. The Planetchief's person and baggage, and those of his daughter, were not examined. Courtesy to rulers. But it's absurd to think—"

"Their bodyguard and servants?"

"All carefully examined and totally innocent."

"Well, we should take XX-ray photos of the baggage of the Planetchief and the girl. Not their hand baggage. It would be insulting to them and embarrassing to us to explain why we wanted to search at this late hour. But someone may have tampered with their larger baggage after it was packed, knowing that it alone would not be subjected to the XX-ray search. If that's the case whoever did it is clever and nervy. If the Planetchief caught him—"

"There would be one less dope smuggler in the universe," said Vic. "A hard man, the Planetchief. Any smuggler would rather face the Earth-laws than the justice of Mars. Zon Scarna commands respect."

"Undoubtedly you have an XX-ray apparatus aboard?" asked Brad Culbertson.

THE Captain hesitated. These three young men were passengers, but they, and particularly Culbertson, seemed to know just what they were doing. He made a decision.

"It's in a cabinet in cargo-room A, but it's dangerous for an unskilled operator. The high tension of the juice it uses, and the character of the rays—"

"I can handle it," said Brad.

Doctor Kunzie returned. "The waiter will never tell us anything now. Someone got him from the rear, through the heart with a silenced slug-gun."

Another orderly entered and spoke to Captain South. "An unidentified spacecraft, bearing no insignia whatever, has been sighted between us and Venus, sir. It will intercept our course, at our present rate of speed, within an hour. The second officer asked me to tell you, sir, that the strange flyer consistently refuses to reply to visual or cosmic-radio signals."

Captain South went to the navigation room, after writing a pass for Culbertson and the others. They descended to the cargo-room and set to work.

The strange stellar craft was drawing near. A mere fifty thousand miles or so separated it from the COSMONIA, and Captain South was watching it through the hypertelescope with anxiety. The course of the stranger and that of the COSMONIA would intersect unless one of them were changed. The other seemed to have come from the growing disk that was Venus, but it showed no planetary insignia whatever. It would meet the COSMONIA in fifteen minutes more.

It was a new and racy-looking craft, with the streamlined teardrop shape to make possible better speed within a planet's atmosphere. The COSMONIA was perfectly spherical, as were most spaceships. The Captain could see, on the image in the telescope, weapon locks, forbidden by the Council of Planets. The stranger was armed. The COSMONIA was defenseless. Piracy? It would take at least three hours, and probably longer for help to arrive from Venus.

Captain South slowed and stopped. He doubled his speed. Five seconds later the stranger did the same. He was thirty-four thousand miles away when the COSMONIA's radioman received the first message from him.

"Slow and stop within five minutes or I shall wreck you. I am fully armed."

Captain South slowed and stopped. He had a thousand human lives to be responsible for, and the stranger seemed both able and willing to carry out his threat.

"What do you want?" asked the COSMONIA's radioman.

"The Planetchief of Mars is aboard you, is he not?"

"He is."

"He and all his party and baggage must be delivered to me at once."

"Who are you?"

"That is not important. Notify the Planetchief of my demand."

Captain South did so. The alien craft was maneuvering close alongside. Wearing a spacesuit for protection, with the cooperation of the navigators of both ships, an individual could be easily transferred from one ship to another, through the air-locks.

Chapter II

AN ABDUCTION.

THE news was all over the Cosmonia and the passengers were requested to keep to their cabins. Brad and Dick and Vic, hearing about it in the cargo-room, made a few last hurried exposures of the Martian party's heavy baggage. Vic took the films to the ship's chemlab. Brad and Dick went to the navigation room, where they had no real right to be.

The stern, hard-faced Zon Scarna, Planetchief of Mars, soon arrived on the bridge with his daughter and their bodyguard. Kee Scarna was schooled not to show her emotions, but she paled a little at the sight of Dick Dubrocq. Zon Scarna ignored Brad and Dick, and spoke to the Captain. No slightest sign of emotion was observable in the Martian ruler's calm exterior, but there might have been the merest trace of bitterness in his voice.

"Captain South," he said slowly, "politics on Mars often become very bitter. I am hated by thousands. Just what or who is behind this attack, I cannot tell you, but if it is they whom I suspect, they would not hesitate one second about annihilating the Cosmonia merely to kill me. Therefore I shall submit, as it is not just that I imperil thousands of Earthmen and Venusians by refusing. The Martians on this vessel, I believed, would be willing to attempt a fight or a flight in my behalf, but they are comparably few, and you and the others owe me no allegiance whatever. You are responsible for the lives in your charge. I ask only that you keep track of this vessel as long as possible with your instruments, and that at the earliest opportunity you send all available Interplanetary Patrol flyers after it."

"I shall do so."

"Please have spacesuits brought, and prepare to transfer my baggage. Notify my captors that I shall shortly come aboard." The captain nodded to the radioman, who bent over his instruments. "You two men," he said calmly as if speaking to

members of the crew, "will supervise the transfer of the Planetchief's luggage. Have it brought to the main air-lock at once."

Dick was dazed, trembling, looking at Kee Scarna who had turned away her head, but Brad caught the cue. He saluted smartly and turned on his heel, nudging Dubrocq. "Yes, sir. At once, sir," said Bradley Culbertson.

When they reached the cargo-room orders from the captain, giving them command of the baggage removal, were recorded on the order tape. The crew cooperated. Five trunks and three sealed crates bearing the imperial Martian insignia were hoisted to the lock-deck, placed on rollers, and rolled to the main air-lock. Strong cables were attached to each.

The Martian servants and guards were donning the spacesuits they would need for protection against the cold while passing from one ship to the other. Spaceships did not dare approach nearer than twenty-five to fifty feet, and cables were attached to anyone or anything being transferred from one to another, in order to prevent loss in mid-space. When the person or object was safe in the airlock of the other craft, the cable could be severed or detached by men waiting there, and drawn back to the first ship. Brad and Dick knew what Captain South had intended. They donned two of the spacesuits hanging on the wall, and joined the party. In the confusion they were unnoticed, and after they were in the suits they were unrecognizable.

KEE SCARNA noticed them. She trembled as her personal maids assisted her into her spacesuit. The Planetchief was the first to be transferred across. He went through the airlock and out into space, attached by a cable to the COSMONIA, jumping away from it and sailing toward the other air-lock, of which the outer door was open to receive him. From the COSMONIA a man in a spacesuit could be seen in that lock, ready with an atomic hydrogen torch to sever the cable of the Planetchief, who had managed the crossing nicely. When the cable was cut the other door of the lock closed, reopening after a few moments. The man with the torch was still waiting, but Zon Scarna had disappeared into the interior.

Kee Scarna was transferred, and then the trunks and crates. Finally came the servants and guards, including Brad and Dick, who went last. When they had been passed through the lock the tear-shaped ship took its departure, flying almost tangentially to Venus, apparently neither approaching nor receding from the planet.

In the meantime Vic Vincennes had the developed XX-ray films destroyed as soon as prints had been made, and took the prints to Captain South.

The three crates and four of the trunks of the Martian party were totally innocent. But the other trunk, the shadow-pictures showed, was one-fifth full of pure refined venn, in powder form. The other four-fifths was packed with venn-plants. Grun Mahu had intended to try to grow venn on Venus. This fifth trunk, now, was in the possession of the abductors of the Martian party.

Dick and Brad were the last to remove their spacesuits in the alien craft. A Venusian, armed with a wicked-looking slug-gun, regarded them suspiciously, as all the others in the party had been Martians. Finally this unpleasant individual asked pointedly what connection they had with the Martian group. The two reacted characteristically. Culbertson started to answer smoothly that they were

interpreters of the various Earth-languages, but he never finished, for the herculean Dubrocq had knocked the slug-gun out of the guard's hand with one beautifully accurate, instantaneous movement.

Brad got the gun almost before it touched the floor, while Dick took a blow on the jaw that dazed even him. In two seconds more Brad had control of the situation, and Dick's mind had cleared. The Venusian's massive hands were above his head, and his eyes were intent on the gun in Brad's hand.

The three of them were alone in the chamber just inside the air-lock. The members of the Martian party had been taken to some other part of the flyer as fast as they had arrived, to prevent crowding in the smaller chamber. The one remaining guard was supposed to bring the last two.

The lock-door opened, and another man in a spacesuit entered—the individual who had stayed in the lock and had severed the cables. Dick jumped toward him before he understood the situation, wrenched the heavy atomic hydrogen torch from him. With all his tremendous strength the giant Earthman brought the heavy torch down in a crashing blow on the other's head. It had not the slightest apparent effect. Excellent physical protection, spacesuits.

Now the guard made a leap for Brad, trying to imitate the blow by which Dick had deprived him of the gun, but Dubrocq, alert and glorying in physical action, flung the heavy piece of apparatus at the guard's head. The guard went down in a heap. Dubrocq recovered his ponderous weapon. An ordinary man could hardly have lifted it.

BRAD motioned for the other to take off his spacesuit. The fellow complied, and they saw that he was a little Martian with a hideously deformed body, and yet agile and strong. Dick ripped off the man's gravity harness. The gravity in the flyer was being kept about equal to that of the Earth or Venus; without a gravity-harness to neutralize most of the pull, a Martian was hardly able to move. All of the Planetchief's party were wearing gravity-harnesses.

The deformed Martian, seeing that resistance was useless, lay flat upon the floor to minimize the, to him, dangerous pull upon his body. He could not move except with considerable pain and the expenditure of much energy. The Venusian was unconscious or dead. For a moment the two invaders were unopposed.

They opened a door leading into a long corridor, and cautiously proceeded down it. Brad still had the gun, and Dick the heavy torch.

There seemed to be no one in the corridor, and no trace of any of the Martian party. "They've probably already been confined in staterooms," suggested Brad in a whisper. "He's being treated well. Servants and baggage all arranged for. What's the purpose of the abduction? Ransom?"

"Shut up," whispered Dick.

They passed closed, numbered doors. Then one that was marked "Elevator" one "Storerooms," and one, further along, that bore the legend "Navigation Room. Brad hesitated. Dick boldly threw open the door and walked in.

There was a long-headed, grim-faced Martian at the control-panel desk. He looked up to gaze down the big bore of the slug-gun, and slowly lifted his long-fingered hands.

Brad was puzzled. The men they had encountered so far were from two different planets. Which planet was behind the affair? What was the motive?

"What do you want?" asked the man at the control-panel desk, paling visibly. He seemed to be totally unnerved, trembling in his chair.

"Cooperation," stated Brad harshly, "or—" He glanced for a second at the ugly weapon in his hand. The other said nothing.

"You will start the flyer back in the general direction of the COSMONIA", said Dick Dubrocq, "and meanwhile you will start at once to calculate the course that will enable you to meet the COSMONIA in the shortest possible time."

The Martian opened some switches and threw some others, adjusting rheostats carefully. He examined the images of the Cosmonia that were upon several ground-glass screens. The telescopes which supplied the images were on opposite sides of the flyer, and gave the distance of the Cosmonia by electric triangulation. The navigator was busily feeding figures into one end of a calculating machine, and was watching the indicators on the other end of the device. From time to time he made a change on the great electrical panel before him.

Suddenly he tore off his earphones and handed them to Dick, who donned them and understood. Someone in command was cursing the navigator heartily, demanding what was wrong with him, and commanding immediate rectification of the course. The navigator had not dared make a reply in the face of the gun. Dubrocq made no reply either, but went to the door and stood at one side of it, knowing that very soon someone would arrive to investigate conditions.

In a moment the door opened and a figure stepped through. Dick hit him with the atomic torch and stood staring at the man, recumbent on the floor. He had knocked out the Planetchief of Mars!

Kee Scarna came through the door with a startled gasp, recognizing the wielder of the torch. Terror came to her eyes.

"Dick! What is it zat you have done?"

Dubrocq was too startled to act. She had called him involuntarily by his given name.

The third to come through the door had a tiny poison-dart gun in the palm of his hand. He had apparently been urging the Planetchief and his daughter ahead of him, covering them with the weapon. He pointed it at the still-dazed Dick, who dropped the heavy atomic torch and raised his hands. He saw the little Martian princess watching him with wide eyes. She was trying not to sob.

IN a very few seconds the Venusian had produced a second dart-gun from a convenient pocket, and was covering Brad.

"Throw the slug-gun on the floor," commanded the Venusian.

Brad tossed it away. One second too late the Venusian realized that Brad had tossed it with the neatest of precision to the upstretched right hand of Dick Dubrocq, who caught it and fired at the Venusian, too hastily. The slug missed its mark and imbedded itself in the opposite wall.

The Venusian fired his dart-guns simultaneously. The dart intended for Culbertson missed but struck the navigator, who slumped forward in his seat. The dart intended for Dubrocq was well-aimed, but the Planetchief's daughter interposed herself between Dick and the Venusian. She fell forward as the dart

entered her shoulder. Dick's second shot put an end to the Venusian. He fell with a gasp.

The Planetchief of Mars came to and sat up. He took in the whole situation, but there was no trace of emotion in his voice. "The navigator and the captain, here," he stated, "are the only two on this undermanned vessel who possessed enough knowledge to navigate a space-ship, and they are both dead. Can either of you men navigate in space?"

"No," said Bradley Culbertson.

Chapter III

TROUBLE AHEAD.

DICK DUBROCQ was very calm. He seized the Martian ruler's shoulder and wheeled him around. "Your daughter," he said, "will die in a very few minutes unless she is cared for. Find me some first-aid materials immediately."

Dick bent over the girl, ripped open her dress, and with strong fingers removed the tiny dart from her shoulder. There was an ugly blue circle two inches in diameter around the tiny cut the dart had made.

"What is it, Brad?"

The Planetchief had already left the room.

For the first time in his life someone had given him an order. He seemed to know something of the vessel, for he returned shortly with a large first-aid kit from the Doctor's office, but there was no doctor aboard that furtive, unlicensed spaceship.

"It looks like Venusian sanzan," said Brad. "There's only one hope. Cut and burn it out."

"God, give me nerve," said Dick Dubrocq. He motioned toward the heavy, undamaged atomic torch. Brad extracted a cigarette lighter from his pocket, and lit the torch. The gauge showed that its limited supply of hydrogen was almost exhausted. Dick selected a keen blade from the kit that the Planetchief had opened. The Martian's hands were trembling, now. He did have love and fear behind that stern exterior. And, as he watched Dubrocq, he had hope, too.

For the merest fraction of a second Dick held the blade in the hydrogen flame. The steel would have melted away in almost no time at all. The ugly circle of blue, standing out vividly against the white flesh of the shoulder, had increased an inch in diameter before their eyes. Dick slashed the blue flesh with the red-hot scalpel, criss-crossing it with cuts. Thick, foul, bluish blood oozed out. Brad wiped it up with sanitary cellulose. The kneeling giant heated the thin blade again and again and cut the merest trifle deeper each time, until clean red blood was all that flowed out. The blue circle, when wiped clean of blood for a second, was paler. It did not increase in diameter. They staunched the bleeding with compresses and were silent, watching. The hydrogen torch went out.

They watched the faint blue circle for ten minutes. It did not increase or grow darker. It became paler as they watched. The girl's breathing became regular. A

choking cry of relief came from the Planetchief's throat, and then he was again the cold and impersonal ruler.

The navigator was beyond relief. His whole, body, now, was almost unrecognizable with that horrible bluish color.

Dick Dubrocq collapsed in a heap on the floor.

A jar shook the spaceflyer. It had collided with a large meteor. There was a tiny, faint hiss. Air was leaking out somewhere. Brad lifted Dick to a seat. In a moment he was himself again. "Thanks, old fellow. A nervous reaction, that's all. It's the first time I've ever played the surgeon with a girl I love."

The hint of a smile played across Brad's solemn features. The Planetchief's countenance did not alter in the least. Dick had forgotten his presence. He came forward.

"The leaking air may become dangerous. I suggest you get the COSMONIA as soon as you can by radio."

"Yes, sir," said Bradley Culbertson.

THE navigator had done his work well. The COSMONIA was a mere fifteen thousand miles away, and careful radio instructions enabled the adept Brad to maneuver alongside the immense spherical flyer, and everyone on the tear-shaped ship was transferred back to safety. A navigator, equipped with a helmet and a liberal supply of oxygen, was sent aboard the alien ship to bring it into Venus safely. Kee Scarna was given excellent care by Doctor Kunzie. Zon Scarna was as impersonal and as apparently unconcerned by events as usual.

After talking with Captain South, Brad consulted the Martian ruler's secretary about the party's baggage. The secretary consulted a card-index.

"Aside from the cases and trunks in the staterooms of the various members of the party," said the secretary, "there are three crates and four trunks in the cargo-room. The Imperial Planetchief has no use for their contents until he reaches Mars."

"Thanks," said Bradley Culbertson. "Hello, Vic. Where's Dick?"

"Kee Scarna asked to be permitted to see him. Her father could hardly refuse. Dick's preparing a heart-break for himself, Brad. He's learning to care for the kid, but she's a princess. It's impossible. It may make trouble—"

"Well, we've located the source of the venn. One of the trunks bearing the Planetchief's insignia doesn't belong to the party. Some clever smuggler got the extra one in without inspection. If the Planetchief finds out—if that secretary ever decides to check up, and finds an extra trunk with the imperial insignia actually counterfeited—There's trouble ahead."

"Poor fellow," said Vie dryly. "In love with a princess. Yes, there's trouble ahead."

Three hours later the COSMONIA had passed through the layer of thick clouds, and was slowly descending in the yellowish atmosphere toward one of the landing cradles of City Fourteen of the Third Nation of Venus.

The Venusian metropolis lay spread out below with its methodical arrangement of cubic skyscrapers. In spite of the ever-present clouds the sunlight had an intensity that it never had on Earth. The great sphere eased slowly down. Vic and Dick and the solemn Brad were on the air-lock deck, where hundreds of passengers were gathered for disembarking.

As the COSMONIA landed gently a bullet grazed Dubrocq's side. It had been intended for his heart. The airlocks had been thrown wide open, and hundreds were crowding to get out into the rich damp air of the Hot Planet. Someone in that crowd, using some sort of silent bullet-projector, had failed in an attempt at cold-blooded murder.

The quick-eyed Vic had caught sight of a slight figure slinking between a couple of obese Venusian women to get out of sight, and had recognized the Martian named Tja Narro. Vic spoke to Dick, who penetrated into the crowd, and managed to approach Tja Narro, who did not make any unusual motion or vain attempt to break away through the crowd. In fact, Tja Narro didn't appear to notice the approach of the young giant Earthman at all until Dick touched his shoulder.

THE crowd, more orderly now, filing out quickly to be met by Venusian customs officers, paid no attention to Dick and the Martian. Vic and Brad watched alertly.

Dubrocq calmly requested the little Martian to come to the navigation room for a conference with Captain South. Tja Narro expressed annoyance, but agreed to come. Bradley Culbertson joined Dick, and they took the Martian to the navigation room. Captain South looked up in surprise from a celestial chart as they entered, and motioned them to three comfortable chairs that were near.

"This gentleman is—Tja Narro, perhaps?"

"I am," admitted the Martian. "These men brought me here ostensibly for a conference with you. It is obvious that you were not expecting any conference, Captain, so I shall not take up any more of your time." He rose and started to leave.

"Just a moment, Mr. Narro," said Dick. "Please resume your seat."

The Martian hesitated, stared into Dubrocq's eyes, and finally reseated himself.

"Contrary to your supposition," said Captain South, "I have been quite desirous of speaking with you, but the work of celestial navigation has kept me busy. Now that we have landed, I feel that it is my duty to inform you that a very serious accusation has been made against you."

"Indeed? Of course I may ask what it is?"

"Of course. You are accused of connection with a band of interplanetary dope-smugglers aboard this vessel, the same band, I believe, that managed to get three tons or more of Martian venn into New York during the last year. This, of course, is the showdown. Unless you can clear yourself, I shall not permit you to land on Venus. I am curious to know why you attempt such a thing, after purchasing accommodations all the way to Mars."

"You seem to keep well informed about your thousands of passengers, Captain. Or have you made a special study of me?"

"You are to answer questions, not ask them," said Captain South.

"I shall answer only such questions as I please to answer," snapped the Martian. "Since you are so eager for a *showdown*, we'll have it out now. To relieve your anxiety, I shall state that I am a member of the smuggling ring under consideration; that I regret failing to kill this Dubrocq, as I had orders to do so. Frankly, he is a nuisance. Eventually, I shall kill him. Don't move, Captain, and, please, don't act so astonished. In about three minutes you will understand that I

hold the steel whip above all of you, to borrow a charming Venusian expression. This is what you vulgarly call a 'showdown', but I am the one who shall do the talking."

Meanwhile an old and wrinkled Martian had approached Vincennes on the airlock deck, speaking in halting English.

"Are you ze man name' Deeck? Deeck Du— Du— I do not know how to say—"

"Richard Dubrocq? No, he's not here now."

"No?" There was a faint note of alarm in the old man's voice. "You are name' Veec? Veec Vinzenne?"

"I am Victor Vincennes."

"Ah! Weel you come weet' me at once? Eet ees very eemportant."

Vie went with the Martian.

"I HAVE a number of things to tell you," said Tja Narro to the three in the navigation room.

"First: I have a weapon in my pocket, easily available. Second; I was entirely within my rights when I attempted to leave the COSMONIA here. Every ticket sold for this ship to Mars allows the privilege of discontinuing the voyage at Venus. From here, I understand, the COSMONIA will go directly to the Red Planet, but I have received orders from my employer, who has asked me to remain on Venus and perform some little services for him there. Mr. Smithers and I have both decided to cut short our trips."

THE captain started at the name of Harburton Smithers, wealthy Earthman, and reached involuntarily for a speaking tube; but he found Tja Narro pointing a mean little bullet projector at him.

"I regret that this diminutive weapon contains only one bullet at a time, but that one is poisoned, and the first of you three who moves will die, while the other two will gain nothing at all, even should you capture or kill me. Let the speaking tube alone, Captain. We shall probably be interrupted sooner or later by some unfortunate individual, but why sign a man's death-warrant by asking him to come here now?

"At present I desire strongly to explain to you some of the latest Martian advances in the interesting science of physical chemistry. My talk, I dare say, will be quite instructive. Please listen quietly, and do not delude yourselves into thinking that I shall not be alert every second for the slightest suspicious move by any of you. Now, about this scientific discovery:

"On Mars, for the last thousand years or so, the best scientists have been inclined to uphold a theory of the atom somewhat resembling the theory presented on Earth a mere century ago by the scientist Bohr and others, the so-called 'planetary' atom. You know, I suppose—a compound central nucleus of protons and electrons, with more protons than electrons, hence positively charged. Balancing this charge are one or more planetary electrons, revolving around the nucleus. Of course, my description is inaccurate and faulty, but I don't want to spend too much time—

"The chemical properties, such as valence, depend on the number of electrons in the outer 'orbit' of the atom. A neon atom, for instance, has a full set of eight

electrons in its outer 'ring' or 'shell', and is complete and stable. It will not combine with anything, not even another neon atom. It is inert, and—"

Tja Narro's manner indicated that he was likely to continue for several hours. Brad interrupted him.

"What are you driving at? Your forced lecture is not particularly new. I'm listening mainly because of the gun, but I confess a curiosity to know why you are discoursing upon the neon atom at the present time. Perhaps you are just killing time?"

Tja Narro laughed unpleasantly. "Perhaps. I find it more interesting to talk than to sit here in silence. Moreover, I am leading up to something quite startlingly definite. To continue:

"Recently a clever scientist of the Red Planet devised a way to make two neon atoms combine by sharing all their electrons. Understand, bi-neon is not a diatomic molecule. It is, rather, a totally new artificial atom, whose properties in no way resemble those of a neon atom. Instead its chemical and physical properties show a resemblance to those of calcium, the mono- nuclear element that has twenty planetary electrons.

"An ordinary neon atom has ten, two in the primary orbit and eight in the outer orbit. It is a gas. Bi-neon is a decidedly metallic solid, chemically active, with a valence of two, the valence of calcium. You can see that a great scientific advance has been made."

Chapter IV

A CASE OF INVISIBILITY.

"I READ the scientific journals of Mars, Earth, and Venus," said Brad, "but I don't remember having heard about this achievement. It sounds incredible without proof. I'd have to know more about the scientist's methods before I could believe his claims. When and where was this discovery made public?"

"Most unfortunately, this scientist met with an accident before his discoveries were made public."

"Indeed?"

"Indeed. You see, the carbonate of bineon, while it resembles in a general way the carbonate of calcium, has very important special properties, one of which is its extremely great index of refraction. In the pure state, bi-neon carbonate is colorless and transparent, as is calcite, a pure form of calcium carbonate. You follow me?"

"Yes," said Dick grimly. "Go ahead."

"Bi-neon carbonate can be prepared as a hard, amorphous substance resembling glass, and the scientist found that a ray of light that once entered a sphere of it could never emerge, due to the extreme index of refraction. The scientist experimented further with mixtures of the bineon carbonate and a pure glass. By varying the percentages, he could vary the index of the finished product."

"I see you coming," muttered Brad.

"You probably do. The savant finally-made a hollow sphere of a bineon-glass mixture that would let a light ray emerge at a point exactly opposite the point at which it entered, but without crossing the central space. The refractive index was such that the light ray was reflected and re-reflected, within the glass, around 180° before it emerged. Then, of course, the sphere, and anything in the hollow space within it, was totally and completely invisible. You know that a prism can act as a mirror, even though it's not silvered. In the same way the hollow sphere acts as thousands of perfect mirrors. No matter from what angle you look, you see nothing except precisely what you'd see if the sphere and its contents weren't there."

"A practical method of producing invisibility," said Brad slowly.

"Not practical. A sphere large enough to hold a man is rather unwieldy. A cylinder is more convenient, though not so technically perfect. You can see a cylinder from the top, though it is invisible if you look at the cylindrical surface.

"A cylinder seven feet tall, mounted on casters, with small holes for the man inside to look through, as no light reaches him, he can't see unless a small eyehole is provided—will render a man totally invisible. Also, there should be carefully machined openings and doors in the cylinder, to enable the occupant to fire a weapon, or to take objects inside, though by doing so he renders himself visible until the opening is closed."

"A very convenient machine for criminals," said Captain South.

Tja Narro laughed again, unpleasantly. "You might have the courtesy to watch your language. But, after all, why not. I am what you call a criminal. So are the others in the—organization. We possess one of those man-concealing cylinders. After the accident that had occurred to the scientist, his inventions were all taken over and kept secret by the Imperial Government of Mars. They overlooked one cylinder, however, for the simple reason that it was invisible. I need not go into details, but that cylinder, after many adventures, is now on board this space-flyer."

THE Martian regarded a diminutive timepiece. "Mr. Smithers has by this time removed from the cargo-room the venn and venn-plants that you discovered with your prying XX-rays. The drug is now safe on Venus. My partner's invisibility enabled him to get rid of the unsuspecting guard in the cargo-room before that individual knew anything was happening.

"Then in two or three trips, he safely transported all the contents of that mysterious extra trunk outside to a fast waiting truck. Another trip, and he carried away the empty collapsible trunk in sections, just to remove all annoying evidence of our work. By simple dash-dot code on my Martian pocket radio transmitter, I have just asked him to come here as soon as he finishes. I expect him any minute. You will see the door open, but you will not see anyone enter."

"Would you mind stating just what your purpose is?" asked Captain South.

"Not at all," said Tja Narro coldly. "You don't suppose I intend to let you live after what I told you? You three have been marked for death anyhow. As I have only one bullet I need assistance. My invisible partner will be well armed. You probably know that the average Martian has no compunction about killing. It's common on the Red Planet, in spite of the complicated system of decadent laws.

"We are a cynical race, not burdened with any flattering though false ideas of the sanctity of human life. An interesting scientific phenomenon, life, but not of any great value. Frankly, we are going to kill the three of you and escape. We can't expect you to like it, but we were peaceably minding our own business until you started to nose in with investigations. Don't move, my impulsive friend. You are a powerful brute, but I can shoot you quite easily before you reach me."

The door of the room swung open, but apparently nothing else happened. The three Earthmen were rigid in their chairs. Tja Narro laughed for the third time.

A hand and arm suddenly appeared in mid-air. A heavy automatic slug-gun was clasped in the hand.

But it was pointed at Tja Narro.

Illustration:

The three Earthmen were rigid in their chairs

The Martian stared a moment, and with a lightning movement raised his own diminutive projector. There was the thud of a partially muffled shot, and the Martian fell forward onto the floor. From mid-air came an ironic voice.

"Had to do it. Couldn't give him a chance with that poison bullet. An interesting phenomenon, life, but not of any great value unless one possesses something remotely like character."

"Vincennes!"

"Right. Now, Brad, if you'll close the door, we'll wait for the charming Mr. Smithers. Unfortunately, he did manage to get the dope off the ship."

The disembodied voice ceased. Brad pushed the door shut, but in a moment it opened again.

Vic's arm and hand and slug-gun reappeared, and the muffled thuds of three shots were heard. Then in the doorway appeared the figure of a falling Earthman, surrounded by a heap of shattered, glittering fragments of thick, curved bi-neon glass. A slug had penetrated his heart.

Vic suddenly appeared as he opened a narrow door in the seven foot high glass cylinder that enclosed him, and with him was the little old Martian.

"The shooting's all over," he said. "You can thank Kee Scarna for your lives. The little princess had a pocket code-radio too, and, being the Planetchief's daughter, of course she would know the Martian dash-dot code. She heard these two gentlemen plotting, and sent this faithful servant of hers to bring me to the only other invisible cylinder on board, one of those that the Planetchief confiscated.

"I was outside listening to your conversation several minutes before I decided what to do. The Planetchief doesn't know that Kee betrayed the imperial secret of the cylinder. I'll have this man put it back where Zon Scarna was keeping it before he learns anything about what's happened. He would probably scold her if he knew what she's done."

"She saved us," said Dick slowly.

"She would, of course, Dick. It's rather obvious that she loves you."

EIGHT hours later the COSMONIA was approaching the Earth's orbit on a direct journey from Venus to Mars, which two planets were just past their

conjunction, while the Earth was approaching the opposite point in its orbit. The COSMONIA was making about one thousand miles a second.

One of the ship's orderlies entered the suite that the three shared. Dick read the message he brought.

"It's from Captain South. He says that an Operative 96M of the Terrestrial Secret Service came aboard when we stopped at Venus. He's after the dope-ring, and wants to hear what we know. The appointment's at ten-thirty. It's now just eight twenty-five."

"Righto," said Brad Culbertson solemnly.

Later in the evening the three went to the private parlor where, according to the note, 96M was waiting for them. There was no one in the room but a very blonde and very attractive Earthgirl.

But on second thought the three decided that she was a woman, not a girl. No one of them would have cared to hazard even an appropriate guess as to her real age. There was an air of capability about her expression and her bearing, and an unobtrusive air of breeding and dignity that was not at all incongruous with her very obvious physical attractiveness. She was the first to speak.

"Mr. Culbertson, Mr. Vincennes, and Mr. Dubrocq, I presume?"

"Indeed yes," said Dick. "You must pardon our surprise. Captain South's message led us to think of you as a man. You are Operative 96M?"

"You should speak more cautiously. In this particular case it's all right. The captain has had this parlor electrically isolated, and, just to make sure, I've spent my time in a fruitless search for mikes or photovision eyes. If you'll be so kind as to close the door completely, the room will be soundproof and we can proceed with the business at hand."

Brad closed the door. "By the way, would you mind showing me your credentials? Just a precaution, you know. As we've never seen you before, there's a possibility that you're an impostor."

"Quite so. Captain South will vouch for me, however. My credentials happen to be in the ship's main safe at the moment. If you will wait here, I shall obtain them."

"Let me offer my services," said Dick, "I am well known to the captain, and I should be glad to save you the errand."

"No. There is also the possibility that you three might be impostors. It was extremely careless of me not to arrange for a positive identification without so much trouble. I appreciate your courtesy, but I must obtain the credentials myself. Please wait here, and say nothing unless the door is closed."

The woman left. Dick closed the door after her.

"What do you make of it, fellows?"

"She's the real thing," drawled Vic.

The giant Dubrocq hesitated. "I don't know, Brad. Somehow she impresses me as genuine enough. If she can present genuine papers—"

He left the sentence unfinished, and the three sat in silence, each occupied with his own thoughts. Brad was speculating about the unusual properties of the carbonate of the synthetic twin-nuclear element, bineon; Dick Dubrocq was dreaming about a slender grey-eyed Martian princess. Peculiarly enough one

Victor Vincennes was thinking of the same Martian princess. Ten minutes passed, and then ten minutes more.

"Well, Brad?"

"She's about four times too slow. Let's go to Captain South's office. I think he's on duty now, and that's where the safe is."

Dick opened the door and the three stepped out.

ON the floor just outside was the body of the woman. A bullet had passed completely through her neck from the front. Brad stood for a moment as if dazed, then looked up and down the corridor. It was deserted, and there was no sound. Dick and Vic knelt beside the sprawled-out body. The face was beautiful even after violent death. The throat-wound had not bled profusely, but it had evidently been instantly fatal. The bullet had completely severed the spinal cord by shattering three of the cervical vertebrae. It lay on the floor not far away. It was made completely of steel, and its force had been almost spent when it emerged.

Dick went for Doctor Kunzie, while Vic stayed by the body. Brad went in search of Captain South, whom he found in the navigation room. The captain was horrified. He called the second officer to navigate and came quickly. Dick had returned with Doctor Kunzie and two white-faced orderlies bearing a stretcher.

For a moment Captain South looked down upon the woman. Then he turned to Brad. "This is not Operative 96M," he said slowly. "96M is a man. He finally decided to get some sleep and see you 'tomorrow' as we say in spite of the fact that there's no day or night out here. I do not know who this woman is."

Brad seemed utterly absorbed as the doctor led the orderlies away with their burden, and the others knew that his keen mind was at work. Brad questioned the captain.

"You sent, of course, a second message stating that the interview was postponed?"

"Of course. Didn't you—"

"No, we didn't get it. Which orderly did you send?"

"The same fellow that brought you the first one; name is Joe—Dr—Joe something. Number 14."

"We'll speak to Joe 14 later. Captain, would you mind sending for the real 96M?"

"Not at all," said the captain, leaving hurriedly. A moment later Doctor Kunzie returned, obviously seeking the commander.

"What's the difficulty, Doctor?" asked Dick.

"No trouble. But I thought Captain South should know that there were about three hundred grains of Martian venn concealed on the woman's person. Pure drug, too. Not the usual adulterated stuff."

"In what form was it, Doctor?"

"Powdered, in ten grain papers."

"Thank you. I'll tell Captain South."

"I'll be much obliged. Good night, fellows."

As the doctor left, Brad picked up the all-steel bullet, examined it minutely, and put it in his pocket after wiping it clean with a handkerchief. Captain South returned, with a small, thin, and altogether negative-looking gentleman whom he

introduced as Operative 96M. The small man produced his credentials, all in order. He listened minutely to all that Dick, Vic, Brad, and the captain told him, but his rather blank expression did not change. He betrayed a slight interest when told of the strange bullet, took it and carefully inserted it in a small leather case he carried. He betrayed no apparent interest at all when told of the venn. He thanked the three for the information, and took his leave, yawning. Captain South returned to the navigation room. The three made their way to their suite.

"Queer-looking little egg, 96M, isn't he, Brad?"

"Don't misjudge him, Dick. Few undercover men look the part. Don't make the superstitious mistake of thinking that men with chins like his are cowards. Well, let's get some sleep."

Chapter V

THE PLANETCHIEF SPEAKS.

WHEN Dick Dubrocq rose he could not find Brad Culbertson anywhere on the flyer. A vague misgiving annoyed him. He roused the sardonic Vincennes and talked things over. Vic, characteristically, put his finger on the vital point of the mystery.

"Y'see, Dick, the main question is this: Why was she killed? Her identity is important, too. She had no credentials to present, and Captain South had never seen her. Her motive in trying to interview us is mysterious. Judging from the venn on her body, she was an addict herself, and probably connected with the ring. Maybe she wanted to find out just how much we knew about them, to ascertain whether or not our knowledge was dangerous to the organization. But who killed her, and why? 96M? No, he was asleep, or he let us think so, at least.

"Who else on the boat would have any possible reason? The dope-ring, presumably, would have profited by knowing just how much we knew. There's no reason for them to kill her, unless she intended to double-cross them and they knew it. If that were the case, she'd seek out 96M, not us. Why did she try that impersonation? There was no possible way to uphold it? Why? If we knew that, we'd be one step closer—"

"I wonder if she might have been killed by mistake. In the semi-lighted corridor, someone waiting outside the door, having seen us go in and waiting for us to come out, might have made a mistake—"

There was a knock at the door. Upon invitation, the small secret service man entered. He spoke in a low voice.

"You are alone?"

"Yes."

"Very well. I may speak freely. Captain South is not on duty now, and as I have been aboard this vessel only a short time, I do not know where his quarters are. It is important that I see him, even if I disturb his well-earned rest. None of the stewards seem to be very much in evidence at this particular moment, or I should not have disturbed you."

"We can direct you to his quarters," said Vic. "May we ask why you want to see him?"

"I've been led to believe I can trust you fellows. I must have the set of master keys that Captain South undoubtedly possesses. I intend to search for the gun that was used last night. You see, nine persons out of ten would look at that bullet and see it was from a .45 caliber weapon. I have precision measuring instruments with me, and I find that it's the merest trifle too large for a forty-five."

"It is from a Venusian weapon, with the unusual caliber known as 7.37 k'kri, in Venusian measurement. Guns of that caliber are very rare. I must have the captain's set of master keys, and the sooner the better. If I find a hidden seven-thirty-seven, we may learn who did the killing last night, and why it was done."

Dick Dubrocq explained in detail how the captain's quarters could be reached, and the little man left them.

"Come with me," said Vic. "You and I are going to interview the Planetchief of Mars. It strikes me that he might be able to help us considerably, but so far we haven't called upon him at all."

"I'm game," said Dick, and they said nothing more until the Planetchief's secretary admitted them to his presence. The stern ruler paid them the honor of rising when they entered his stateroom.

"Gentlemen," he said, "I seldom receive visitors at such short notice, but I should like you two and Mr. Culbertson to feel free to call upon me at any time. When we reach Mars I shall desire to decorate you for saving my daughter's life. In what way may I be of assistance now?"

"I do not know how much is known to you," began Vic, "but it has been discovered that there is a ring of narcotic smugglers aboard this vessel. Their business is the illegal transportation of Martian venn to Earth and Venus."

"I AM fully aware of the existence of the 'ring', as you call it," replied the Planetchief. "I stated once that politics on Mars often become very bitter. I am hated by millions on Mars. There is a very good reason for that feeling. The organization that is smuggling venn from Mars is perhaps larger than you suspect. There are millions upon millions of Earth-dollars profit in the drug-traffic, but it lives on blood and human misery. The immense political group that is opposing my rule, sometimes even by violence, is organized and financed by the narcotic ring. They want to get rid of me."

"I have the reputation of being stern. Perhaps so; I am just. It is a matter of common knowledge upon three planets that captured smugglers and venn-agents and sellers are always rigidly prosecuted on Mars, and, if found guilty, immediately and severely punished. I insist upon such measures, although it is impossible to completely enforce the stringent Martian narcotic laws."

"If I were replaced by a weak or a corrupted ruler, the venn-distributing organization could acquire many more millions of Earth-dollars and Venus-tuals than it now does. Venn has legitimate medical uses. It should be controlled. I am doing so to the best of my ability, and I am cordially hated by thousands, millions of the inhabitants of Mars, who are swayed by the propaganda of revolution and revolt spread by the political groups which are directly financed by the illegal distribution of a deadly narcotic."

"Thank you. We have been wondering about the motives behind that attempted kidnaping. Do you happen to know the identity of any member of the ring?"

"Of only one, and by description only. An Earth-woman, refined and gentle in appearance, is a member of the inner circle of the organization. I believe that by Earth-standards she would be considered beautiful. I do not know the name, but recently one of my personal agents has obtained evidence of her membership in the ring. Of course, as long as she does not appear on the planet Mars I can do nothing to her. The organization has many representatives on the other planets."

"Is she rather taller than the average, with extremely light hair and blue eyes?"

The Planetchief's eyes suddenly gleamed. "Yes. That is her description as reported to me."

"She, or someone like her, attempted to impersonate a secret agent of the World Federation, and was mysteriously killed several hours ago. We are seeking her identity and the cause of her death. It is inexplicable."

"We thank you," said Vic. "Your time is probably valuable, and we won't trespass on any more of it."

"No matter. I am under a very great obligation to you. Please convey my salutations to Mr. Culbertson."

"We shall," promised Dick. "Please accept our wishes for the speedy recovery of your daughter."

The Planetchief said no more. Outside in the corridor, Vic turned to his companion with a puzzled frown. His voice was as metallic as ever.

"Ten to one the woman he mentioned is the one killed by our bullet with the odd caliber. Somebody saved us from spilling what we know to a member of the *inner circle*. Who? The Planetchief himself and 96M are the only persons I can think of who would have reason to shoot her, and I doubt whether either of them did. There's something funny about this business."

"Yes. And if Brad doesn't show up soon I'm going to be worried."

"I am already. There's been too much killing on this vessel. The organization commits cold-blooded murder with no more compunction than—"

THEY had just rounded a turn in the corridor. In a heap on the floor was the slight figure of the mild-looking, unobtrusive little man who was "Operative 96M." For a moment they thought he was dead. Examination, however, soon showed that the man had only been stunned. A sizable lump on his head showed by its position that he had been struck from behind by some heavy object, powerfully wielded. A little patience and a little water brought him to.

He had not the slightest idea who had hit him, but the group of master keys he had obtained, by which every door on the vessel could be opened, was missing. No hope of making a careful search for the weapon now. Its rare caliber would have made it very incriminating evidence if it had been found, and microscopic examination could verify the fact that the bullet in question had been fired from it. The little man explained all this in a voice that was trying hard but unsuccessfully to conceal an extreme chagrin. Operative 96M had been very neatly robbed without getting a glimpse of his assailant.

They took leave of him immediately, and attempted to locate the boy named Joe Stubalski, Orderly Number 14; but Joe was mysteriously absent too. None of the

other orderlies had seen him since their breakfast. It took about ten minutes to establish that Joe was totally missing.

Dick was worried. Finally he disturbed Captain South again and told of Brad's disappearance, and of the orderly's. The captain put in a call for 96M at his rooms where he had retired after making sure that the keys were gone from his pocket. Repeated ringing of the ship-phone utterly failed to elicit the slightest response. Then Captain South, under the assumed name the man was using, had him paged on all the decks by the loud speaking announcing system. There was no response, and none of the orderlies who searched the ship for him located the mild little man any place aboard the whole immense spacesphere.

Chapter VI

MISTAKEN IDENTITY.

OPERATIVE 96M of the World Secret Service was missing.

After half an hour of search and indecision, Vic and Dick decided to enter the two-room suite that the little man had engaged from Venus to Mars. The corridor door opened into a small parlor, but a spring lock was automatically keeping the door fastened from the inside. As the master keys were not available, the giant Dubrocq hurled his weight against the door, once. The lock gave. He stumbled in, Vic followed him, and Captain South was close behind them. For a moment all three stood motionless, appalled at what they saw.

In a coagulated pool of his own blood lay Joe Stubalski, Orderly 14.

"Just one more killing," said Vic sourly. "This makes about seven in the last day or so. Observe the document in the right hand."

"What? Oh, I see. You're observant, Vic. What is it?"

Gingerly Vic removed a small, bloody rectangle of paper from the hand of the dead orderly. It was a piece of Earth-currency, a hundred dollar note.

Captain South went to the ship-phone and called Doctor Kunzie.

"Suppose we see what's in the bedroom," suggested Vic, pushing open the door between the two rooms. "Say, come here. Something hellish is loose on this ship."

Vic's voice was quivering. The other two jumped to the door. Vic was kneeling beside another figure, that of Bradley Culbertson, and a third was sprawled out absurdly a few feet away. It was the little man. On the floor between them was a Venusian gun, of caliber 7.37 k'kri.

"Brad's hardly scratched. Just stunned," said Vic with a gasp of relief. "96M has checked out. We've got to find out who did this before—Attaboy, Brad—He's coming around."

Doctor Kunzie entered, examined the two dead men rapidly, and then helped Vic revive Brad. Solemnly he opened his eyes and looked around.

"Who did the shooting?" asked Dick.

"96M killed Joe and shot me. I got him," said Brad slowly. "You see, he's not 96M. 96M is that woman whom this impostor killed last night."

"Impossible," exclaimed Captain South.

"Let me explain," said Brad. "Before you awoke, Dick, I went to the radio-room after donning some clothes and a pair of your rubber-soled shoes. I couldn't sleep, you see, and I was suspicious. Thanks, Vic. A drink's just what I want. Don't worry, Doctor; that scratch on the scalp isn't dangerous. I've only been out a few minutes.

"I sent a cosmic radio message, in an intricate code I devised, to the Federation of Earth-Nations. I knew that experts on Earth would be able to penetrate the cipher.

"About three hours later I received an answer in the same code. It gave me an authentic description of 96M; she is the woman who was killed last night. The radio operator will confirm my statements; he sent and received the messages for me. Meanwhile, while the identity of the woman was still unknown to me, the doctor here permitted me to examine her body.

"I performed certain well-known chemical tests for venn in her blood, or rather for the end-product that venn finally changes into. She was entirely negative, and I began to think that the venn was planted on her body after the shooting.

"After the message finally arrived, I shadowed our little impostor, and selected a good moment to blackjack him from behind.

"He didn't hear me approach in your shoes, Dick. I took the master keys he had obtained from the captain, and started to search his rooms as quickly as possible. I located the gun he used last night,—that seven thirty-seven. Also I found the most complete set of forger's tools imaginable; inks of all kinds, ink-removers of all sorts, pens, paper-mending tools that can splice two sheets of paper without leaving a trace of the joining, and samples—I wonder where he got them—of all sorts of genuinely officially watermarked papers.

"And I found a uniform somewhat resembling Captain South's, except, of course, that there were no insignia such as the captain wears on his neck-band. So I knew what had happened. An interview with Joe Stubalski confirmed what I had guessed. I called him here and showed him what I had found. He broke down and confessed, although the little man had bribed him, with that century note, to keep silent.

"With the pseudo-uniform the man had had the nerve to impersonate Captain South. He looked genuine enough; the woman accepted him without question as the genuine commander, particularly when Joe came up, apparently by accident, and addressed him as Captain South. She permitted him to take her credentials, to be placed in the safe, for captains of interplanetary vessels are always men who have proved throughout many years that they possess the highest type of honor and dependability. Don't blush, Captain. She would not have let any ordinary person have the credentials. She told about the interview she wanted, and to make it look genuine the man dispatched Joe with the message to us.

"Then he left her, went to his room, and made a hurried forgery of the credentials. It was easy enough to substitute photographs, but ticklish when it came to altering the name and the physical description of size, weight, sex, and so on, to fit his specifications. He managed to do it, splicing in some of his contraband paper, tinted just right with his splendid assortment of inks. The great seal of the Federation was genuine.

"He presented these credentials, and, for safety, to prevent us from finding anything wrong if we checked up, he had Captain South dispatch Joe with the same message the woman had sent. Of course, Joe did not disturb us a second time. He just left the captain's presence.

"But our impostor had to kill the real 96M if he wanted to be safe, and he wanted something of an alibi. So he told the captain he would retire. The captain sent Joe with the second message, but Joe didn't deliver it because of contrary orders from the little man. If we didn't keep our appointment the girl might be suspicious and on her guard. You know the rest, I suppose.

"When the little man came here he made the mistake of shooting Joe first. I had overlooked a gun he had when I stunned him. When he shot Joe I dodged into the bedroom and got that seven-thirty-seven he had hidden in here. I wonder why he wanted those keys?"

BRAD handed the set of keys to Captain South.

"I can't oppose your story," admitted the Captain. "The little man seemed genuine. When did you get Joe's message?"

"About eight twenty-five," said Dick.

"H'm. I sent Joe to you, the first time, just after nine thirty. You're right, Culbertson. He had almost an hour in which to make the forgery. Nervy, all right. I suppose he is a member of the ring?"

"I'm quite sure. Look in his inner pockets."

Vic Vincennes did so, and returned with a handful of small, thin, folded papers. Each, they found, contained ten grains of pure venn. "He planted those others on her body," drawled Vic.

"How," asked Dick, "can we explain the fact that the agents of the Planetchief describe the woman as a member of the narcotic ring?"

"Quite probable. The code-message from Earth, in response to my inquiries, told me that for several years she had been playing a desperate lone game, pretending to be one of the ring. She gained the confidence of the inner group, and probably had accumulated very valuable evidence. Recently somehow they discovered that she was a spy, and, you see, managed to get rid of her. The man with the little chin carried out his orders quite efficiently."

"I see. The Planetchief's operatives thought—"

Vic Vincennes, exploring further the pockets of the pseudo-96M, discovered a square of paper from which one end had been torn off. He read it and handed it to Brad. It was brief and to the point.

###LETTER

Kill Dubrocq, Culbertson, and Vincennes within six hours. Destroy this note immediately. N.A.

"Well," said Vie, "we're slated for death."

"N.A.," said the herculean Dick. "H'm. Say, Nathan Axelmann is on board. The New York financier. I wonder if he's mixed up in this—"

"Few people know it," said Captain South slowly, "but we also have aboard with us the venerable old Martian, Norr Avornu. He is the recognized head of the

political party opposing the rule of the present Planetchief. Avornu stays closely in his rooms. An old man, I am told."

"But this is Earth-script—" began Dick.

"Of course. It was written to an Earth-man who wouldn't understand Martian."

"Well," said Dick. "If we three want to live, we'll have to force a showdown soon."

"Yes," said Vincennes. "Damn soon."

They left Doctor Kunzie to his gruesome task and walked back toward the navigation room. "We've made exceptionally good time," said the Captain. "I've crowded the speed up to three thousand miles a second plus. The modern generators we possess can give very rapid acceleration that is also very smooth. By the way, in an hour from now our artificial gravity will be reduced to the Mars-normal, instead of the Earth-normal we are using now. Terrestrials and Venusians will have to wear positive gravity harnesses, set at approximately 3.09 to increase the pull on their bodies. Martians will be able to discard their negative harnesses, as our present electrogravitation will be gradually reduced."

They reached the navigation room. The little blood-red disk that was Mars gleamed through the thick windows of quartzinite. The Captain spoke again, gloomily.

"In less than three hours we'll have landed on Mars, and our last chance to strike a blow at this murderous organization will be gone. I have been morally certain for a long time that Norr Avornu is the brain of the venn-ring, but I have not the slightest shred of evidence upon which to hold him. This note proves nothing. It might have been forged. It would be necessary to prove that he wrote it. As far as I can see, our hands are tied."

BRADLEY CULBERTSON spoke quietly. "I think you will find Avornu a gentleman," said Brad. "Suppose you call him here for a conference, show him the note, and mention that although you have nothing but that and other circumstantial evidence, nevertheless things look rather suspicious. Ask him if he has any statements to make, any denials. Ask him, as evidence of his good faith, to submit to a psychological examination.

"Doctor Kunzie was showing me this morning a beautiful instrument he possesses, a marvel of accurate scientific craftsmanship, a brand-new and unbelievably delicate sphygmopsychometer, such as are used by the World Police Organization. Y'see, Avornu can't fail to realize that a refusal to submit to the examination will look bad for him. If he refuses, don't press him. If he'll let you, hook him up to the soul machine and ask him all the questions you want to about the venn-ring. Doctor Kunzie is an experienced and competent psychologist. He can take a look at the charts made by the instrument and tell you whether the man is lying or not."

"By Jove, I never thought of that angle of attack," exclaimed Captain South. "We'll do it at once." He reached for a speaking tube.

"One moment, Captain," said Brad. "One of us three should stay with you, as a witness of the interview. I suggest that it be Vic, here. Dick and I would be superfluous, and I'm expecting a message from Mars any moment."

Bradley Culbertson rose to leave, and Dick accompanied him, leaving Vic and the Captain wondering just what he meant. Dick tried to question him as they walked down a deeply carpeted corridor. Brad would answer nothing.

"Believe me, Dick, I've got a good reason for not telling you what I know, yet. There's a fifty-fifty chance that there may be hell let loose on this flyer in a little while. I know what I'm doing. I want you to search all the decks for Kee Scarna. She's recovered from that sanzan, but she's still rather weak. She may be in great danger, and I know you don't want her to be in any sort of danger. Find her and ask her to go to her room until we reach Mars. See that she promises you to stay there."

"All right, Brad, you're the professor," said Richard Dubrocq, "What are you going to do in the meantime?"

Two-fifths of a smile played across Culbertson's sober lips. "I'm going to the ship's library and see if I can find a copy of Doctor Gnanson's scholarly work, *The Theory and Practical Applications of Para-Electricity*. It's a branch of physics I've always wanted to study."

Chapter VII

A COUNTER-REVOLUTION.

ONE hour later the ship's announcing system warned the passengers that the change of gravity was soon to take place. Earthmen and Venusians donned gravity-harnesses of thin silver bands, attached to ludicrously small para-electric pocket batteries. The currents of para-electricity set up could be made at will to increase or decrease the electrogravitational pull upon the individual who controlled them. Terrestrials and Venusians adjusted their positive harnesses so that the Mars-normal gravity wouldn't send them flying around at every step. Martians discarded the negative harnesses which had kept the Earth-normal gravitation from harming their bodies.

Shortly after the change Dubrocq came to the library. "I finally located her maid, who says that she's feeling indisposed, and hasn't risen yet. She'll be safe, I suppose. The maid says that she won't rise until we reach Mars."

Vic Vincennes arrived. Vic was attempting to suppress a certain amount of excitement.

"Well?" inquired Brad.

"Doctor Kunzie gave Avornu a clean slate. He cooperated with us, and the psychomechanical evidence absolutely absolves him. He said that he knew of the existence of the ring, but he denied any connection with it. Any psychologist in the solar system would have sworn he was telling us the truth. Not the slightest microscopic deflection of the recording styli."

"I expected it," said Brad.

"It astounded Captain South. He's running around in mental circles at present. Do you suppose that Martian can control his nervous organization to such an extent that he can lie to a sphygmopsychometer and get away with it?"

"I have not studied the nervous anatomy of Martians closely enough to hazard an opinion," said Brad academically. "It might be possible. Has any official message come from Mars yet?"

"Not that I know—"

The spacesphere's announcing system broke in, stating that Captain South would like to meet Dubrocq, Culbertson and Vincennes in the radio-room.

The operator was bending over his instruments when they entered. Captain South was holding a sheaf of message blanks, regarding the topmost with astonishment and anxiety. "Ah," said Brad. "A cosmic radiogram from Mars!"

"Yes," said the captain dully. "We've lost our chance. This radiogram announces that the established government of Mars has been overthrown completely by a short and deadly scientific revolution. Zon Scarna and his daughter are exiled forever; forbidden to land on Mars. For the time being the revolutionists have picked Norr Avornu, who seems to be the popular idol, to take charge of the complete reorganization of the planet's government. Norr Avornu has absolute power at present."

"I knew it yesterday," said Brad Culbertson. "I suppose you have sent copies of the message to Norr Avornu and to Zon Scarna?"

"Yes. Just a moment ago. They must have them by now."

"H'm. I wish you hadn't. I wanted to intercept that message. It's a peculiar trick of fate, to have both the present and the deposed ruler on board at the same time. I wish I knew more of Martian psychology—"

THE unmistakable sound of an explosive bullet detonating on impact interrupted Brad. He rushed to the door and out into the corridor while the others stood motionless for a fraction of a second, startled. Four more explosive shots were heard in rapid succession.

"They're gunning for Brad," said Vic under his breath. He and Dick and the captain leaped toward the corridor door. A figure confronted them, then in a second four more appeared, all Martians, and all with an automatic or a ray-pistol in each hand. The first was Zon Scarna. His face was no longer stern and expressionless, but showed plainly anger—cold, calculating, and entirely merciless. He spoke.

"Some of my men now have control of the navigation room, and of the second and third officers of this spaceship. Others are guarding well Norr Avornu, an old fool. You, Captain South, and the other officers are, I fear, the only men aboard who know enough of celestial navigation to safely handle this spaceflyer. From now on I shall command. If you obey, and if everyone else aboard obeys me, I guarantee that most of the passengers for whose lives you are responsible will not be harmed in any way. With Norr Avornu in my power, I shall proceed to dictate terms to Mars. All of you will now proceed to the navigation room."

They did so, silently, well-covered by the weapons of the desperate ex-ruler of Mars and his followers. The second and third officers of the COSMONIA were helpless, facing the guns of more of Zon Scarna's men. The former Planetchief spoke again, his voice level and cold.

"As for you, Dubrocq, and you, Vincennes, and your friend who tried to get away, I shall kill you, now. You three in particular have meddled with things that

do not concern you. Your friend was wounded or killed in his foolish flight. An orderly who tried to resist us is dead. Culbertson is lying in the corridor now, probably dead too. I must make sure."

He spoke to two of his men in Martian, telling them to get Brad, whether he was dead or alive, and bring him to the navigation room.

"I shall kill you three with the poisoned needle-gun, and my men will immediately give you burial in space. You and your officers, Captain, will watch me with such composure as you may have at your command, and realize that I will brook no interference whatever; that I do not and shall not hesitate to eliminate anyone who annoys me."

The two Martians returned from the corridor, empty handed. The Planetchief's countenance hardened. Vic Vincennes saw him lift his needle-gun at point-blank range, and felt an intolerable weight falling upon him, crushing the very life from him. He crumbled to the floor, overcome with nausea. The room seemed to be spinning, the sickness more acute and more horrible. Then unconsciousness.

IN the dynamo-room, in the very center of the enormous sphere, a figure lay recumbent upon the floor. Another pulled a huge double-throw knife-switch into its off-position, and began a systematic process of disconnecting other switches. His hands were bare—he ran the risk of death by para-electricity, the strange "cold energy," second cousin to electricity—but so expert was his manipulation that he did not give the thousands of ampères of cold "juice" a chance to short through his body.

Brad Culbertson glanced at the man he had felled, and proceeded to the navigation room. On the floor were the motionless bodies of Vic and Dick, of Captain South and the other officers. There were also ten shapeless masses, all that was left of Zon Scarna and his Martian aides. Dick Dubrocq, of the mighty physique, soon revived, and helped Brad revive Vic and the other Earthmen. The mangled bodies of the Martians were removed by the ship's orderlies, under the direction of the wondering Doctor Kunzie.

"Suppose you explain, Brad," suggested Vic pointedly. "Dick and I and these officers would like to know what it's all about."

"As briefly as possible," began Brad, "the situation is this: For many years Zon Scarna has been the hidden brain of the venn-smuggling organization, but not until very recently was this known to the Martian people in general. Zon Scarna would permit no competition. Any unfortunate Martian who took up the smuggling business on his own initiative was soon ferreted out, tried, and condemned to death.

"Thus Scarna furthered his own interests by reducing competition, at the same time throwing a smoke screen across his own trail. He gained a reputation for stern and righteous justice. The Venus-and Earth-governments approved most heartily of his actions. But this apparently righteous ruler was the carefully hidden brain behind the venn-ring.

"Incidentally, Dick, his one and only redeeming feature was his love for that daughter of his. She knows nothing of her father's real character or occupation. She was the only thing he was capable of loving; and he would have been genuinely grateful to us for saving her life if it hadn't been completely demolishing

his plans, and if you hadn't let him hear you say you loved her. He didn't intend to have any Earthman take that girl away from him—

"He brought aboard an extra trunk-load of venn, and had it smuggled off at Venus under cover of invisibility. Remember how willing he was to submit to the attempted 'kidnapping'? He engineered the whole thing, in order to be very sure that the inconceivably valuable trunk-load of the pure, unadulterated narcotic could be landed on Venus. He has a hidden landing cradle upon the Hot Planet.

"At the regular terminal of the COSMONIA the trunk might have been searched with XX-rays, for the Venusians don't observe the custom of exempting rulers through courtesy. He planned the *abduction* by supposed Venusian brigands. But when the meteor struck the vessel, causing it to leak air, Scarna came back to the COSMONIA without giving his hand away. You recall that he was not under restraint on the alien vessel, Dick, although he appeared to have been so. Of course, with his daughter poisoned, he returned without protest to the COSMONIA, where expert medical aid was obtainable. I think Kee Scarna has suspected something wrong ever since that *abduction* fell through. The venn, however, was successfully landed on Venus by one of his agents, using the more risky and hitherto secret process of invisibility stolen by the Planetchief from the Martian savant who invented it.

"OPERATIVE 96M of the World Secret Service penetrated his secret and informed the Federation of Earth-Nations, the Planetary Council of Venus, and the heads of the perfectly legitimate political organizations opposing Zon Scarna's rule on Mars. A very remarkable woman, 96M. It's a shame she was killed.

"I obtained all this information yesterday from the Federation of Earth-Nations in reply to my code message, but at that time Zon Scarna was still ruler of Mars and you'd hardly have believed me anyhow. With the knowledge and consent of Norr Avornu, his party led the almost instantaneous revolution on Mars, gaining complete control of the planet. That was what I was waiting for, for as soon as that news came through we could arrest Zon Scarna and perhaps put an end to these attempts on our lives.

"You are wondering perhaps about those initials. I could hardly keep from smiling at you when you interpreted N. A. to mean Norr Avornu. None of you seemed to recall a fact that is undoubtedly known to you all. The Martian system, and it is no less logical than ours, is to consider the last symbol in the name as the initial, rather than the first. And, even when his name was phonetically transliterated into Terrestrial spelling, he kept the same system; N.A. plainly and straightforwardly signified Zon Scarna.

"When I heard that shot today—the shot that killed a totally innocent orderly who happened to be standing in the Martian's way, I saw clearly in a second what had happened in Zon Scarna's mind. Always bold, he would capture the unarmed ship; then, with Norr Avornu as hostage, he would be in a position to dictate terms to Mars.

"I rushed out and he shot at me. The explosive bullet missed me, but I fell voluntarily and lay quiet while other bullets went over me and struck the corridor wall, demolishing it in places. If he had only fired one bullet he would have seen, by the damage it did to the wall some distance away, that he had missed me.

"When he and the others went into the radio-room, I made a successful break for the generator room. I didn't have time to argue with the man on duty there, so I hit him on the temple from behind. I disconnected the para-electric cables that supplied artificial gravitation to many of the rooms of the ship. I hooked them all to the cables that carried the para-juice to the navigation-room gravity-field circuits, and cut in all the generators for seven seconds. Anything longer would have burnt out the coils.

"I robbed the rest of the ship to concentrate our gravitational power here. You, with sturdy terrestrial bodies, were able to stand it for a few seconds without serious or permanent injury, in spite of the fact that you are wearing positive gravity-harnesses. The Martians, of much frailer physique, were crushed to death immediately, apparently just at the most opportune time. You may not have noticed it, Vic, but there's a poisoned needle-dart sticking in the rug just three inches in front of your left foot.

"That's about all. I reconnected the para-electric cable correctly, and came here, asking Doctor Kunzie to come with me. His office was horribly disarranged by the temporary cessation of gravity. I'm sorry. All of his instruments and medicines floated around the room at random. It couldn't be helped—"

"I'm sorry for Kee Scarna—" began Dubrocq weakly.

"The shock is going to hurt the little princess," drawled Vic, "but she'll take it standing. She's a thoroughbred. Yet someone ought to take care of her. She's just a kid of eighteen or so, according to Earth-time, alone in the universe. It'll be up to you, Dick. I saw her fall for you when you spilled her wine, and I've watched you fall, son. Ask her, Dick; the invulnerable social barrier is gone, but she's a Martian girl, and wouldn't think it proper to take the first step herself. She's exiled from Mars; it's up to you to take her back to Earth and make her forget—"

DICK had turned away, flushed, doubtful, afraid. Vic stopped talking. He posed as a cynic, Vic Vincennes. It wouldn't do to show any emotion. The others never knew that Vic loved the girl too; Vic would have denied that he knew what love was, had anyone asked him, which nobody did. Vic Vincennes changed the subject.

"What about Norr Avornu?" he ejaculated dryly. "According to Zon Scarna, Avornu was well guarded by several men. Most probably he still is."

Captain South started, pulled open a drawer, and abstracted four automatics. "We'd forgotten him! Let's investigate at once." The others took the proffered weapons and started toward the door of the navigation room. Vic Vincennes, in the lead, collided with something he couldn't see. It was a moment before he found his voice.

"An invisible cylinder!" he exclaimed, rubbing his forehead. "What in the—"

The cylinder wasn't directly in the path one would ordinarily take while entering or leaving the room. Vic had blundered into it by accident. The giant Dubrocq stooped, put his arms around the glass he could not see, and brought his tremendous strength into play. He lifted the seven-foot high, thick, heavy glass cylinder into the air and set it down again several feet away. Culbertson's low voice rang in his ears.

"Dick! I depended on you to keep her away. God, I've crushed her to death."

For on the floor, revealed when the cylinder was moved, was a pitiful little heap of blue and silver.

Kee Scarna, however, was not dead. When her father had received the message announcing his defeat, she had donned slippers and had thrown a blue and silver silken robe over her pajamas, and—

"She tried to warn us," said Dick. He had picked her up in his arms, had seen that she had not discarded her negative gravity-harness of thin silver bands. Instinctively, when she felt the gravity increasing, she had turned the tiny dial on the band about her waist, increasing the strength of the negative force that protected her. It had not been enough to prevent her from falling unconscious with pain; but it had saved her from being crushed. She was breathing regularly, slender and beautiful in the giant's arms. He was carrying her to the doctor's office. The others were with him, but Richard Dubrocq paid no attention to them. He bowed his head and kissed her pale lips, her warm white throat. Then he looked at Vic, and his eyes were somber.

"You're wrong, Vic. If you'll think a minute you'll see. She'll get over her attachment for me. Interplanetary marriages are so seldom happy. There's too great a physical and psychic difference. She wouldn't be happy. I owe it to her to drop out of her life, before she does something she'll regret all her life. She been a dead game sport; I can be one too."

Vic looked again at the girl's tear-stained face. "You are right, Dick; I was wrong," he said, and for once in Vic's life his voice held no irony, no bitterness, no edge.

The giant relinquished his burden to the patient and overworked Kunzie. "Take care of her, Doctor, please," he asked, and turned to join the others. They proceeded to Norr Avornu's stateroom, but received no response upon knocking repeatedly. The captain opened the door with a master key.

The venerable Norr Avornu held a weapon in each hand, covering two Martians who were cowering against the opposite wall of the room. Norr Avornu smiled pleasantly.

"Ah, gentlemen," said he. "I am much relieved. I feared you might be the reenforcements these two individuals seem to desire. I take it that you have the situation well under control?"

"Yes," said Vic, smiling a little as he gazed at four deadly Martian ray-pistols on the floor. "Would you mind telling me, sir, how you gained the upper hand on these—er—gentlemen?"

"It was indeed most fortuitous. For some reason the gravity in this chamber failed without warning. In the sudden state of weightlessness my captors, startled, dropped their weapons; and were unable to recover them, as a slight muscular motion was liable to send one flying all over the room most ludicrously. I, on the other hand, obtained in a second my small weapons from my sleeve-holsters, and when, very soon, normal gravitation returned, I was well-equipped to keep my captors in a state of complete docility. And how did you fare, my friends?"

"It's a long story," said Captain South, "but you may thank these three gentlemen. Their remarkable services brought about the overthrow of Zon Scarna."

"They shall be very generously rewarded."

Dick Dubrocq took a step forward. "Kee Scarna is innocent of the crimes of her father. Please withdraw her sentence of exile."

For a moment the wise old Martian looked into the eyes of the Earth-giant. His voice was low. "It shall be done, my son."

The blood-red planet cast a ruddy light into the chamber through the thick windows of the spacesphere.

