

# AMAZING STORIES

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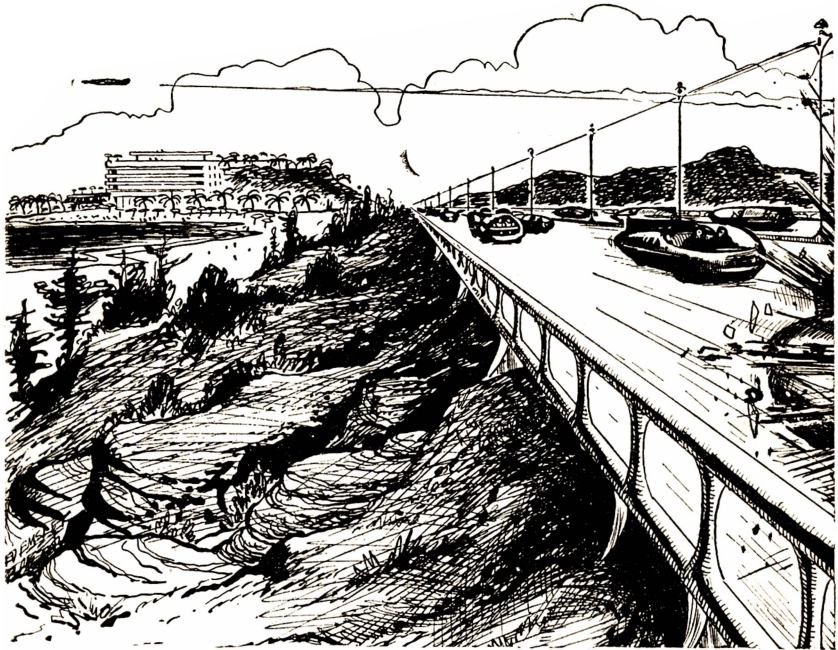
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# FORMULA FOR GALAXY I

*By Lee Gregor*

**These killers were of the civilized type  
who could very casually eliminate a man  
— or a planet — as part of the day's work**



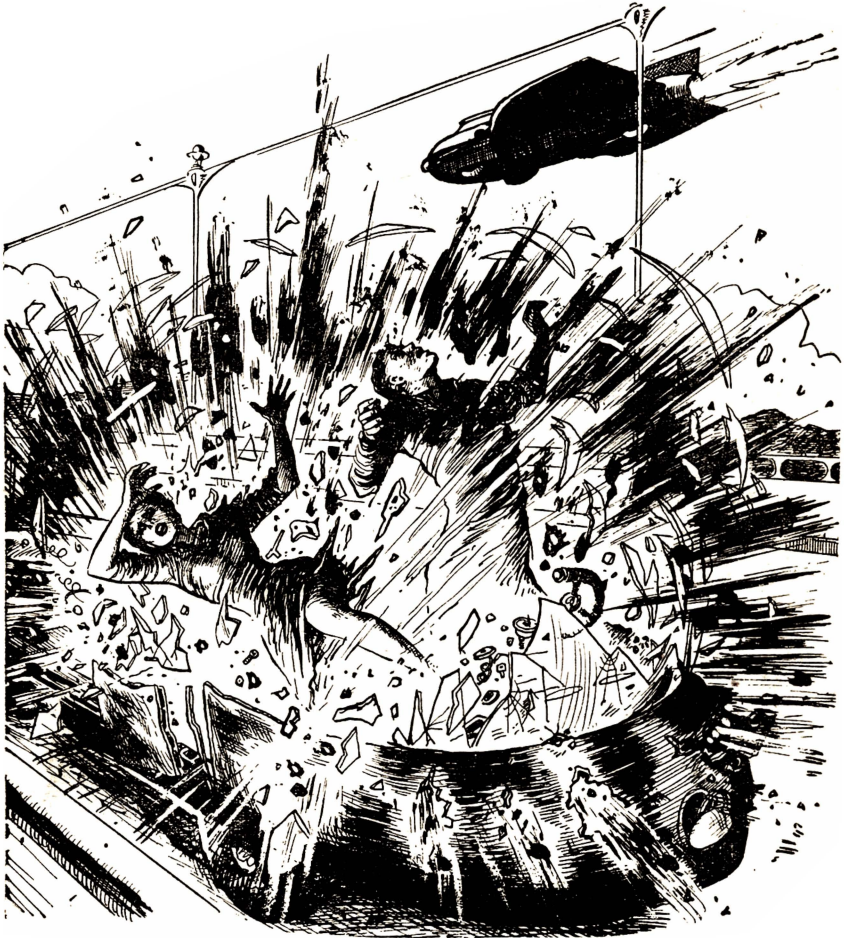
**A**S JACK ROMANO approached the chair, the geiger counter in his belt burst into a furious, raucous warning. Shocked, he stumbled back to a point where the buzzing stopped.

The chair, an aluminum-ribbed folder, stood where he had left it the night before, on the edge of a small cliff overlooking a valley hemmed in by iridescent crystalline spires. In

front of it was an easel, beside which stood his paint case.

The ground beneath was bare, with a sprinkling of soft green growing things in the crevices. The rocks that towered on all sides reflected the light of the distant sun in a pattern of startling colors. No animals stirred.

Romano tentatively approached his chair once more, and again the geiger



The car went up in a blaze of white fire

counter shrilled in his ears. He retreated to a safe distance, and surveyed his painting equipment with dismay. The fingers of his right hand pulled fretfully at his thick, black hair.

Abruptly he turned and walked to the air car which stood several yards behind the edge of the cliff. Snap-

ping the communicator switch, he said, "Let me have Robot Service, please."

To the metallic voice which replied, he commanded: "Get a location fix on this transmitter and send out a robot equipped with radiation measuring equipment. Immediately, please."

"Yes, sir," the robot said, and cut out.

Romano left his carrier wave on as a guide, and walked back to the point where, about twenty yards from the chair, his counter clattered mildly. He made a half circle and verified that, indeed, the radioactivity centered upon the chair or painting equipment.

This, he mused, was a curious thing. And even more deadly than curious. More on the lethal side.

**H**E CIRCLED again, drew a cigarette and lit it, trying to think the situation through. The preceding night he had left the chair and paints in that spot, intending to return and continue his work. On the asteroid of Doreen, with its man-made atmosphere, its artificial gravity, its automatic temperature control, there was no weather to dampen the chair, no animals to interfere, no human within fifty miles. No reason to prevent him from leaving the equipment out overnight.

This morning... Suppose he had not possessed a counter? The thought trickled chillingly through his mind. Suppose he had not been given a warning?

His fingers trembled the smallest amount as he lit another smoke, and he walked back to the air car to await the robot. He toyed with the buckle of his belt—which contained the tiny, concealed radiation detector among its silver ornamentations.

His life had been saved by the single fact that he habitually carried a detector with him. This was thought number one that loomed in his consciousness. A radiation counter or detector of some form had been standard equipment with photographers for a number of years. In a solar system pockmarked with radioactivity left over from an interplan-

etary war, such a precaution was a necessity. Without this warning device, the famous Romano scenes of nine planets would more than once have become vague blotches of colored film.

**T**HOUGHT number two bloomed into life. Radioactivity does not grow like a weed. It could not have appeared by itself. It might have fallen as a meteor, but examination of the area showed no signs of a fall. Furthermore, meteor showers were prevented by the same force fields which kept air on the asteroid and which maintained gravity at Earth normal.

It could not have come by itself. Therefore, it must have been brought.

His mind stopped at that point.

Above his head another air car whispered through the atmosphere. It circled once and dropped directly beside him. A tall, glistening robot detached itself with a flowing motion from its socket.

"Your instructions, sir?" it asked.

For a moment Romano hesitated, thinking how to frame his uneasiness into words.

"Go to the chair," he directed, "and measure the radioactivity there. Locate the source of radiation and hold it up so that I can see it. Then take it to the radioactivity dump."

"Yes sir," the robot said, moving off toward the chair. It paused hardly a moment as its built-in radiation-measuring instruments recorded the flux intensity at the chair. A cap at the end of a flexible member flipped open, and the directional geiger counter probed here and there, seeking the source of the radiation. In a moment, it came to rest pointing at one of the legs of the chair. The robot paused, baffled. Suddenly, with dumb inspiration, it picked up the chair and held it for Romano's inspection.

Impatiently, he shouted, "Unscrew the bottom of the leg."

The rubber plug at the bottom of the tubular metal leg screwed out, allowing a long, narrow cylinder to drop free.

Romano stared at it through binoculars, found nothing to see. The object was the size of a toothbrush box, black and featureless.

"Report on radiation," he heard the robot saying. "Gamma rays 100 roentgens per minute at a distance of one foot, plus high intensity of fast electrons and neutrons."

"Thank you," Romano said, blindly, as he stumbled into his car and had the autopilot spin him aloft.

Ten minutes on that chair and he would have been a dead duck.

**A**S HE CIRCLED the Hotel Doreen, preparatory to landing, he watched the other air car dash off in the direction of the radioactive waste dump, where the cylinder would be held until sufficient load was amassed for transportation to the sun itself.

He paused as he reached the terrace, his eyes scanning the thirty-odd people sitting around tables, lounging on the sand, swimming lazily in the pool. How typical, he thought, that with an entire hundred-mile-diameter asteroid for exploration, the guests at this resort chose to remain within calling distance of the pool and bar.

How many were there, he wondered, including the ones inside the hotel, in the dining room, in the game rooms, on the playing courts. Two hundred, perhaps? How many employees?

Eliminate the children and the matrons and you had left a number of hard-type characters who remained strictly in their own tight clans. Of these, perhaps half could be allocated as legitimate businessmen on legiti-

mate vacations. The remainder—the ones who sat around the game tables, or who wandered alone among the rocks gazing with impatient, hot eyes at the stars—these were the ones in temporary or permanent exile—the businessmen of dubious businesses, the entrepreneurs of shady dealings, who found the asteroid a convenient and quiet place where the police paid few visits.

**R**OMANO walked onto the terrace. One of these people had quietly presented him with the radioactive slug and was now waiting for him to die quietly.

Which one?

Was it the white-skinned tenth-generation Venusian in the florid green shorts, or was it the leathery-hided Martian colonist who split a bottle of Tekla with him?

What could be the connection between these total strangers and himself?

While he had spoken to many of the people in the hotel as part of the process of gathering material for his article, there was no more connection between them and himself than there was between any reporter and his public.

Christopher Chavanne had been his major contact. Chavanne, fabulous even in a solar system teeming with fabulous individuals. He sat now at a large table near the swimming pool, together with several others whose acquaintance Romano had made during the past few days. His huge bulk overflowed the minute quantity of clothing that he wore, and as he lifted a glass to his lips with a great, hairy paw, he caught sight of Romano and boomed out in his heavy, bass voice, "Romano! Back so soon from the painting?"

"Yes. I...uh...ran out of turpentine."

"Well, then. Have a seat and join us."

As he borrowed a chair from another table and fitted it in among those at Chavanne's, it took Romano's breath away to think that one of these was possibly the person who planted the radioactive slug in his chair. In the moment that it took for him to seat himself, his eyes rested briefly on each person at the table, and his mind ticked off the information that he had concerning each one.

First, Chavanne himself, the owner of the asteroid and of the hotel. And much more than that. Chavanne, the robot manufacturer and inventor who had bought up the bankrupt hotel fifteen years ago in order to give himself a pleasant place in which to do research on calculating machines. Made habitable and landscaped more than a hundred years previously by a forgotten genius, the asteroid was a spot where Chavanne could reign as absolute monarch, and where the most fashionable people in the solar system would come for their amusement.

**HIS** FACE broad and smiling, Chavanne held the ever-present glass in his great hand, an obese sybarite in appearance. Yet Romano knew that in another hour he would be in his laboratory, supervising the construction of his latest and most complex mechanical brain.

On the other side of Chavanne there sat Jennahagan, one of the tenth-generation Venusian settlers. Not quite as bulky as Chavanne, his flesh was of more solid muscle, and his skin had, by exposure to ultraviolet lamps, become darkened to a deep tan. Poking back in his memory, Romano dredged up the identification: Jennahagan, inventor of Jennite, the drug derived from certain well-known Venusian plants, a drug

which had been outlawed for many years. But, Romano guessed, not sufficiently outlawed to prevent Jennahagan from maintaining a very expensive residence in the Hotel Doreen.

John Grimmenden sat beyond, small and wrinkled. A retired manufacturer of small machinery, he had attached himself to Chavanne's crowd without invitation. An unknown quantity.

Jerrold Wald, young, thin, and prominently beaked, came next. Seeing him, Romano wondered where Jerrold's uncle was. Sigmund Wald, one of the solar system's great authorities on force fields, had come to Doreen ostensibly for a vacation. However, Romano did not think that a person with a mind as active as the scientist's would hide himself away in a frivolous vacation resort—although Romano was sure that at the rates Wald charged as a technical advisor he could afford to buy the place.

Romano had thought the uncle-nephew relationship a trifle strange. Jerrold, a real playboy type, fitted into his present surroundings perfectly. Yet, into his position as secretary to his uncle, he fitted not at all.

Again an unknown quantity, as far as his relationship to a certain slug of radioactive matter went.

Finally, sitting at Chavanne's left, was one whom Romano had seen and admired at a distance. Dressed for swimming, she filled her costume adequately. In the broad expanses between portions of clothing her skin was tanned deeply, and her dense brown, almost black hair was braided and coiled nobly about her head.

Romano shot a raised-eyebrow glance at Chavanne, who took up the cue with, "You two haven't met, have you? Dr. Helva Hansen—Jack Romano."

She took his hand firmly, and with a small shock he realized that the eyes staring squarely into his were of an amazing blue.

"Romano," she said. "Oh yes, the photographer. I remember your series on the Martian ruins. Very beautiful. But the painting...?"

"Strictly a hobby. Call me a frustrated artist, if you will."

**R**OMANO had maneuvered his chair next to that of Helva Hansen, so that Chavanne sat two places to the right. The robot manufacturer grinned at Romano.

"Make sure you get Dr. Hansen into one of your photographs," he said. "Improve the scenery."

"An improvement indeed. But the doctor handle. M.D., Ph.D., or what?"

She smiled broadly at him. "M.D. and Ph.D. both. Psychiatry and psychology. The entire broad expanse of the nervous system is my territory. You are now supposed to be very impressed and ask me for an analysis right away."

Flippant social small talk grated against his mood.

"Sorry, not impressed. My mother is a psychiatrist, and I discovered at an early age that psychiatrists are people. Most of them, anyway. As for an analysis, I'm afraid that my present troubles are not suited to that technique."

The psychiatrist's trained ear heard not only the words that he said, but the entire manner in which he said them, and she became aware that what he said was not frivolous banter, but something very serious.

Casually, she asked, "What sort of troubles?"

Romano said: "My major trouble at the moment is trying to get an angle for the article I'm doing on the asteroid Doreen. The place is fascinating and fabulous, but I have to

put my finger on one aspect to build around. An angle."

He paused a moment, gathering courage to make the plunge he contemplated, and choosing the proper words. In this pause, Chavanne suggested, "Why not use the robots as your angle?"

"There," he said, exhibiting mild enthusiasm, "is an idea I've been toying with. There are probably more robots per square meter on this asteroid than anywhere else in the solar system."

"Naturally." Chavanne leaned back in his chair and crossed his hands on his vast belly. "They're my babies. In other places they're still too expensive for everyone to use them as housemaids. But here is their experimental proving ground. Here I can indulge myself."

"Then they will be used more commonly in the future?"

"Of course. Robots will be built to manufacture other robots, which in turn will manufacture other robots. They will become more intelligent and organized."

"Could they become dangerous?"

Chavanne shrugged. "A robot is a machine. Machines can be dangerous if misused. You can be killed by a car walking across the street."

"But could a robot intentionally kill a man?"

"Of course not. A robot has the most limited intelligence. It will carry out short-range orders and then it will sit still until you tell it to do something else. It can't really think for itself.

"As for killing someone, there are circuits in every robot which forbid it to handle any weapon."

"But what's to prevent me from ordering a robot to fill my best enemy's sugar bowl with sugar—with a few micrograms of plutonium added for flavor? The robot doesn't know



any better, and—”

**A** GLASS toppled, and Jerrold Wald, his face a furious red, leaped backwards from the table to prevent his drink from landing in his lap.

Romano and his psychiatrist neighbor lifted eyebrows at each other.

Chavanne was not so easily diverted from his favorite subject. While the robot waiter mopped the table and refilled the glass, he continued, while Romano filed the incident in a corner of his mind and reminded himself to think it over some time in the future.

“The early robot inventors,” Chavanne was saying, “saw a long time ago that robots might be used as tools in all sorts of crimes. They prevented this by a very simple device. A robot is not an individual. It is connected to its central office by a microwave beam. In the central office is a memory bank which records every order given to the robot, as well as the name of the person giving the order. Part of the reason for this, of course, is that the person using the robot will be charged for the services. But having the record kept centrally means that you can’t hide what you have done by destroying the robot. The record can always be found in the central office.”

Jennahagan, the Venusian, grunted impatiently. “Damned lack of privacy,” he bellowed. “Any nosey character can find out what you’ve been doing by calling up Robot Service.”

“Not at all,” Chavanne objected. “The memory bank is confidential. It responds only to the police and to high officials. If you think that I have nothing better to do with my time than spy on my friends, you’re sadly mistaken.”

A train of thought tumbled madly through Romano’s mind. If orders to

robots were on record, then all he had to do was ask who had sent a robot to deliver the radioactive slug, for surely nobody had carried it by hand. Could he trust Chavanne enough to ask him, or should he wait for the police? But surely Romano’s unknown enemy must have known that some sort of record would be kept. . . .

Then the significance of what Helva Hansen was saying filtered into his head and jolted him hard.

Her words were: “Is the memory bank on this rock operating yet, or are you still working on it?”

Chavanne said: “It should be operating very soon. The new system we have installed will be more efficient than the old by a large factor.”

Romano heard himself say, “Do you mean to say that no record is being kept of robot orders? How long has this been going on?”

“For about ten days we have been converting the memory banks into the new experimental system. We were able to do it without interrupting robot service, but it meant that records could not be kept.”

Romano’s voice was hard, argumentative. “And you allowed this to be public? So that anybody could give a robot any kind of order without being caught up?”

The argumentative tone overflowed into Chavanne’s voice. “I intended it to be secret, but it got out accidentally. Only the people at this table know about it—aside from the men at the shop. Why get so excited about it? No harm has been done.”

“No harm’s been done, eh?” Romano felt the words burn through his throat, and he suddenly found himself very angry. “But somebody ordered a robot to plant a slug of radioactive material on my painting

chair this morning. If I'd sat on that chair for ten minutes I'd be dying now, right in front of you."

**T**HE GROUP at the table was shocked into a sudden quiet. For a long instant each stared at him. Presently eyes began to wander, and there were many sidelong, questioning glances from one person to another.

"But who?" Helva Hansen finally asked.

"That's what I'd like to know." Romano's anger began to turn back upon himself. Furious because he had spoken without caution, he began to realize that his best action now would be to protect himself by implicating everyone present.

"You can bet your boots about one thing," he declared sharply. "The slug was handled by a robot, and the robot was ordered by somebody who knew that records were not being kept. That means somebody at this table, or else one of your men, Chavanne."

Romano sat back, and found himself perspiring. He had tossed the situation into their faces. He hoped that it would not blow up in his.

Chavanne broke the silence. "How did you know it was radioactive?"

"With a geiger counter, of course."

"Since when do photographers go around wearing radiation detectors?"

"Since the last war. There's so much radioactive crud lying around loose that a photographer has to know where his films will be spoiled."

"Lucky for you."

"Damn lucky. The question is, how long will my luck hold out? This character who tried to get me—why is he after me? And, is it important enough so that he'll try again, now that he knows I got away the first time?"

"Don't be too sure," Jennahagan

roared at Romano, "that it was one of us."

"I'm not sure of anything. But I'm going to make sure that whoever is after me won't try again."

"And how will you do that?" Chavanne asked.

This brought Romano up short. "I'd be stupid to tell," he snapped, knowing that the bluff was as transparent as air.

Chavanne's suggestion, then, turned out to be absurdly simple. "Why don't you," he said, "hire a bodyguard from Robot Service? It's a new model we have just developed. In fact, I'll let you have one free as a field test. It does everything except taste food for poison, and we might even work on that if there is enough demand."

Bursting into laughter, Romano shook helplessly for a moment. It was partly caused by the picture of a bodyguard robot standing watch against an enemy robot, and it was partly a reaction against the tension of the past hour. Chavanne's solution to his problem was so elegant that Romano felt a feeling of warmth toward the fat man.

This led to a train of thought, which in turn led into a plan for doing something more than sitting and chewing his nails.

So he said, after his laughter had subsided, "Man, what a brilliant idea! I'll go order myself a robot watchdog now." He stood up quickly and withdrew from the table.

**A** MOMENT'S pause at the service desk in the hotel sufficed for Romano to place his order with Robot Service. While he waited for the mechanical bodyguard to arrive, Romano visited the communications office and asked for a private, scrambled beam to Earth. While the con-

nections were being put through, he examined a large timetable and noticed with a feeling of relief that day hours prevailed in the Western Hemisphere. Then he recalled that the rotation of Doreen had originally been arranged to bring this about.

Romano locked himself into the tiny booth with the typewriter, and sat down to collect his thoughts.

Because of the time lag between the asteroid and Earth, telephone or television communication was too tedious to be practical. Teletypewriter was standard.

"Dr. Felice Romano," he typed. "Cybernetics Research Institute, Mexico City, Mexico.

"Hello, Mother. Your big boy wants some confidential information concerning a fellow psychiatrist, namely, Dr. Helva Hansen. Is she any good and can I trust her with my last penny?"

He had almost written "and trust her with my life," but had decided that this would not be discreet.

It was nice, he thought, to have a mother who knew people.

While he was waiting for the reply, his bodyguard arrived and was promptly named Fido. It was a fairly ordinary-appearing robot, slightly larger than usual, and with a bizarre red and yellow set of markings. It was a walking type, for universal mobility, as opposed to the domestic rollers.

When Fido reported to Romano, the latter acknowledged receipt by touching his identification seal to a contact on Fido's chest, transmitting a signal to the central office for the beginning of charges. Considering what the charges normally were, Romano was quite happy that Chavanne had offered to put this on the house. He hoped that the presence of Fido would do him some good.

The clattering teletypewriter in-

dicated a reply on the way.

"*Helva Hansen is a first-rate psychiatrist, I am told, and a fine person as well. She has not been known to make bad debts. Is this it?*"

IS THIS it? Mothers. Between taking photographs, writing articles, and dodging sundry assassins, he was expected to indulge in romances. He had nothing better to do.

Well, his subconscious asked him, did he?

Enough of this, he said sternly to his subconscious. There are serious things afoot.

His subconscious subsided, but not without a moment of triumph, for as Romano emerged from the communications room into the hotel lobby, Fido trailing behind him, he encountered the psychiatrist hurrying to the elevators.

"Hello," he greeted her. "The clambake has busted up?"

"Yes. There's been some bad news."

"Oh? How bad?"

"Sigmund Wald just died. He had been ill for several days." She looked him square in the face. "Radiation sickness."

Romano clamped himself steady and stood for a moment, concentrated thought screwing his face into a knot.

"Somebody tries to get me with radiation," he said in a very even tone, "and then Sigmund Wald dies of radiation. Do you mind if I connect them?"

"It's too easy to jump to conclusions. The story is that Wald blundered into the area where the ship crashed during the last war. The radioactivity there covers a large circle, perhaps ten miles in diameter."

Romano's laugh was sharp and bitter. "So Wald just happened to stumble upon the radioactive area while mountain-climbing. That's the

story they would have made about me if I'd gotten it. If my geiger counter hadn't..." He clutched at the thought which he had just scared up. "I suppose Wald wasn't wearing a radiation meter of some sort? A physicist going around without a detector?"

Helva stopped at this, her mouth open in what Romano thought was a very charming manner.

"Suppose we look in at Wald's room," she said.

They found Chavanne there, with Jerrold Wald and Dr. Broden, the hotel physician. Sigmund Wald still lay on the bed.

**R**OMANO stared at the body for a long moment, his mind an ugly blur of thought, his fists clenched, his arms stiff along his sides. With a conscious effort he released his muscular tension and dragged his mind up from the depths.

Silence fidgeted for a moment. Romano explored with his eyes up and down the room. The exploration came to rest upon Jerrold Wald, who leaned against a chest of drawers, nervously playing with a wrist watch of a very elaborate sort.

Romano walked over casually. "That watch has a counter in it, hasn't it?"

"Yes. Uncle was wearing it the day he went out mountain-climbing."

Romano found it interesting that Jerrold Wald was compelled to offer this information.

"Didn't it warn him of the radioactivity?"

"No. It wasn't working."

"It wasn't working!"

"Dead as Pluto. We discovered that afterwards."

"But..." Romano paused in frustration.

"Dammit!" Romano exploded.

"How can a physicist go around with a counter that doesn't work?"

Jerrold Wald shrugged, turning the watch over and over in his hands, looking out the window, at the bed, on the floor, everywhere except into Romano's eyes.

"I didn't have anything to do with Uncle's work. Just wrote letters for him. I don't know when was the last time he used the counter. He hasn't done any experimental work for a long time. He's a consultant, you know."

With disgust twisting his mouth, Romano shook his head. The story hung together. A physicist with a counter that doesn't work, and with an urge to go mountain climbing. A radioactive area with insufficient markers, into which an unwary person could blunder and be marked with slow death.

It hung together, and yet it was wrong.

**S**HOULDERS hunched forward, head jutting forward, Romano paced the floor, thinking with blind fury. His black hair curled wildly over his forehead, where jewels of perspiration glittered. The roundness of his ordinarily easy-going face was distorted with the effort of his thinking. Both hands were thrust deeply into the pockets of his brown hiking pants. As he clumped back and forth in his heavy shoes, his robot bodyguard followed until he snapped at it to keep still.

He jerked at the touch on his elbow, and his upward glance caught the smile that paused for an instant on Helva's face.

"Jack," she said, "don't you think you're trying too hard?"

He caught his breath—a nervous grin untwisted his mouth. For a moment she had sounded like his mother, with the same professional psychiatric trick of making remarks that dug through the surface and rocked

you back on your heels.

"Obviously," she said, "something is biting you. Out with it."

"I'm being bit," he replied, "but I can't tell what's biting me."

"Nothing unusual. Any guesses?"

"Nope. Just because somebody tried to radiate me out of existence it doesn't mean that Sigmund Wald was knocked off in the same manner. Yet I feel that he was, and at the same time I can't tell why I feel that way. I could call it a hunch, and yet..."

"And yet you know that a hunch does not come from nowhere. Could you have observed something, somewhere, which has stuck in your mind without being noticed, but which comes up to the surface sufficiently to give what you call a hunch?"

"I could have. But what? What could I have seen?"

"Don't beat your brains out. It only makes things worse. You should know better."

"Okay." Romano sighed and slumped against the wall. "So I relax and I free-associate. Then what?"

"That's for you to say. Maybe it's something you saw in this room. This is the only place where you have seen Sigmund Wald during the past three days."

Shrugging his shoulders, hardly believing that he would find anything, Romano began to look. In outward appearance it seemed that again he paced the room aimlessly, sunk in tense thought, but now his eyes shot his sight perception into every corner, upon every object.

"Oh hell," he groaned presently. "I'm just as likely to miss the very thing I'm looking for. Uh..."

Then he had it.

"The pants," he said. "The belt buckle."

from the chair and examined the silver buckle. Jerrold Wald craned his head over their shoulders, while Chavanne and Dr. Broden looked up from their conversation, becoming aware that the course of events had been broken, that something was taking place.

"So?" asked Helva. "What about the buckle?"

Romano smiled broadly at her, his tension released. "What about the buckle?" he repeated. "I'll tell you. A belt buckle saved my life this morning. It's a wonderful little thing. A complete electronic circuit within a belt buckle. A radiation detector, in fact. It's the latest thing back on Earth. I bought mine just before I came here. Sigmund Wald must have bought his very recently also."

Helva's mind leaped at the succeeding thoughts. "Then Wald did have a detector that worked, and that means he couldn't have walked into the radioactive area without being warned."

"Right. And Sigmund Wald was murdered, just as I would have been murdered if my detector hadn't warned me."

Then there was the room with the five standing about the bed, amber light filtering through the window curtains, the silence of hard thinking and of rapid breathing.

"But, Jack." Chavanne's voice was quizzical. "If Wald had a working detector, then it would have warned him of murder just as it warned you."

Romano clutched desperately at his thoughts to prevent the entire structure of his theory from collapsing.

"Maybe they got him at a time when he wasn't wearing the belt. Maybe they used a different method entirely. The point is, he *couldn't* have gotten his dose of radiation by walking into the radioactive area.

**H**ELVA WAS quickly at his side as he lifted the pair of trousers

That's the story we were expected to believe, and it's not so.

"Sigmund Wald was murdered by radioactivity, and somebody tried to murder me this morning. I think, Mr. Chavanne, that you had better call the police."

**C**HAVANNE heaved himself to his feet, chewing his lips and pulling his brows together. "I suppose it's necessary," he growled, beginning to leave the room.

"Dr. Broden," Helva asked, "are you certain that Wald died of radiation sickness?"

"I'm not a very good doctor," he said, in a low voice. "You don't develop and expand when you play being doctor at a fancy resort hotel. This was the first case of radiation poisoning I had seen in twenty years. Since I was an interne, in fact.

"So two days ago Mr. Chavanne came to me and said Sigmund Wald was sick, that he was nauseated and his gums were bleeding. He'd been walking around in the mountains and must have gotten into the radioactive area. So I looked at him, gave him a blood count, found it down to nothing and said, yes, he's suffering from radiation sickness. Shot him full of what remedies I had, but it was too late."

Dr. Broden turned away from the window and forced himself to look at the others. "Now I'm not sure of anything," he said. "I'll have to make an autopsy."

**R**OMANO sat with Helva Hansen at a small table on the terrace, his hand wrapped firmly around a cold glass. Fido stood stolidly behind, gazing imperturbably at the gay figures which sported in the pool and lounged on the beach.

Romano said, "Look here. Why do people get themselves murdered? Mostly for money. Sometimes because of passion, revenge, just plain

lunacy, but mostly for money. Did Sigmund Wald have any money?"

"Depends on the point of view. For a scientist he had quite a pile. To somebody like Chavanne it would look like peanuts. The point is, do *you* have any money?"

"Hell, no. But...oh, I see. Why should I be considered a tempting target?"

Helva looked into her glass and spoke deliberately. "I look for similarities and throw out all extraneous data. The only thing you and Sigmund Wald had in common was a habit of hiking about over the countryside. For you it was painting. But you were among the very few guests in this hotel who were to be found on the other side of this rock."

Romano's mind latched onto the idea like a steel trap.

"Then whoever tried to do us in didn't want us over there. Either we saw something we weren't supposed to see, or we were bound to come across it. This makes it clear what's to be done."

"It's clear, but is it safe?"

Romano chewed his lip. "Depends on how nutty our murderer friend is. Suppose we go out there among the mountains to find what it was we weren't supposed to see. Our Mr. X knows that if we find it, his goose is cooked for sure. Will he try to knock us off again? First, it won't be so easy with a few robot bodyguards on our side. Second, he'll give himself away for sure if we have Robot Service keep tabs on everybody leaving the hotel."

**H**ELVA LET her eyes wander over the shimmering blue water surface. She found this a meaty problem.

"As you said, much depends upon just how psychopathic our murderer is. If he is sufficiently unbalanced, his desire to kill the ones about to

discover his secret will overbalance the more remote danger of giving himself away by making this killing.

"And from our point of view, if we get killed, it is still no cause for rejoicing if the murderer gets caught with us as the bait.

"I suggest you wait until the police arrive. This is no game for amateurs."

"We're going to smoke out our man just as safely as lying in bed. Furthermore, we're going to make Chavanne get off that big fat end of his and earn his pay."

Helva smiled maliciously. "That I'd like to see. Chavanne's idea of security is to set robot guards all over the hotel, when the man we want could be a hundred miles away. Makes the guests feel safe while at the same time experiencing a little vicarious excitement."

"One piece of excitement per lifetime is enough for me," Romano said sourly. "When it becomes fatal, that is. Let's find Chavanne."

They crossed the lawn at the rear of the hotel and entered Chavanne's laboratory. Romano called for the fat man through the interphone and the two waited impatiently in the tiny anteroom.

Dressed in his working coveralls, Chavanne appeared like a tiny, impatient blimp. "I have a calculator running," he said breathlessly. "Have to get right back. What can I do for you?"

"It occurred to us," Romano said, suppressing a frivolous compulsion to sink a pin into the blimp, "that while we are sitting around on our butts here, the clues to the murder of Sigmund Wald are to be found over on the other side of this asteroid. I suggest that you send some of your robots out on a systematic search—to look for whatever it was that Wald and myself were on the

verge of discovering."

Chavanne jerked his hands irritably. "Don't you think that's a job for the Interplanetary Police?" he asked.

"But Chavanne," Helva cajoled, "Jack is trying so hard to write a good article about your asteroid. You'll make it easier if you can help, with this. And you'll look so much better yourself. Think of the publicity."

Chavanne snorted. "I detect the fine odor of blackmail in this. If I sit back and wait for the police I'm just a dull clod who invents robots and calculating machines. If I help you solve a mystery, then I'm a great celebrity and people will hail me from all ends of the solar system."

Romano shrugged. "That's life."

Chavanne waved his hands distractedly. "All right, all right. Just don't bother me any more. Tell Robot Service to go ahead. Now, please excuse me. I must get back to the calculator."

But he was optimistic. As he turned to leave, Dr. Broden walked in, followed by a robot laden with small pieces of equipment.

"Returning your counters and things," he said, in a voice that dragged slightly with weariness.

Romano smelled antiseptic soap on the doctor's hands. His reporter's nose perked up.

"The autopsy?"

The doctor nodded. "Finished."

He paused a moment, collecting words. "We were right, and yet we weren't right. It was radiation sickness after all, but from internal causes, not external. Minute quantities of radioactive material had been taken orally. In other words, Sigmund Wald was literally poisoned. Probably with a mixture of fission products."

Romano pursed his lips to whistle, and heard Helva Hansen gasp with a quick intake of breath. Radioactive

poisons—the most devastatingly deadly materials in the universe! Poisons so incredibly potent that a millionth of a gram could be absorbed into the body, to remain in the organs, in the bone marrows, sending virulent radiations directly into sensitive tissues. No wonder Wald's counter had failed to give him warning. The amount of radioactive material used could be so tiny that it would emit no more radioactivity than an ordinary fluorescent watch dial—it would affect the counter no more than the customary cosmic ray background.

But when ingested it produced slow, certain death.

**T**HE RADIOACTIVE material dump was a lonely, bare building, some ten miles from the hotel, surrounded by a terrain of harsh red rocks. A sign on the door said, in large red letters: **RADIOACTIVITY! KEEP OUT!** It had been locked, but now it stood open, its lock blasted to bits.

Romano did not care to enter.

"How convenient," he said to Helva Hansen, who stood by his side in front of the building. "An entire dump loaded with ashes from the asteroid's atomic power plant. Free for anybody's picking. No guard, no alarm. Enough stuff in there to kill everybody in the place."

Helva walked with him back to the air car.

"It seems irresponsible," she agreed. "Yet remember that nobody but a robot could go into that building. And the robots all report back to Robot Service central office."

"So just at this particular time the recording system is on the bum and the field is clear for anybody to have a robot commit any kind of mayhem in privacy."

Romano closed the door of the air

car and punched the starting switch. "I wonder if the robots have found anything."

"Unlikely. They've been on the lookout for only an hour. It's a difficult search when you don't even know what you are looking for and don't know how well it might be hidden."

Romano grunted. He repressed an urge to call the hotel, knowing that they were to call him if anything was found.

"Can't blame them," he said. "There are at least 25,000 square miles to be covered, and only ten Robot Service's resources."

He whirled the car aloft and circled for a moment, while a thought circled in his mind.

**F**INALLY he said: "I'm going to play a screwy hunch. I don't know where it comes from except that I must have a suspicion that's so wild I can't even admit it to myself."

Helva raised her hands in mock admiration.

"Well!" she exclaimed. "Your subconscious is working overtime today. Just let me know when you need help."

Romano grimaced at her and put in a call to the hotel. He wanted to know the location of the radioactive area where Sigmund Wald was supposed to have gotten burned.

Helva stared at him while he wrote down the figures.

"No, I don't intend to get myself irradiated," he reassured her. "But it strikes me that since both Wald and I were supposed to have gotten our doses at that place, then just conceivably the mysterious doings we were on the verge of witnessing might have been somewhere in that locality."

Helva nodded, dubiously. "That



could possibly be logical."

"I have nothing better."

Twice they caught flashes of light, reflections from the cars of the robots cruising in calculated circles. Doreen's landscape was gone into night, and there was only darkness below and the shimmering mesh of stars above.

"Hell," Romano grumbled. "I forgot it would be nighttime on this side."

He switched on a pair of searchlights that spread pale fingers through the darkness, raising glittering and confusing reflections from the rocks below. Still nothing could be recognized.

"We should be about there," Romano muttered, slowing the car and beginning a wide circle. Helva clutched at her seat arms, while Fido, the robot bodyguard, stood solidly braced in a corner behind them.

Romano had the air car skimming the ground, searching for the radioactive area markers, when without preamble Fido boomed out in a tremendous voice a warning that an air car approached within close range from behind and above.

Romano, responding with instantaneous reflex, swung the searchlights around to that direction and at the same time slowed his car to almost a halt, allowing it to sink towards the ground.

There was a tremendous white flare followed by a concussion that bucked and jarred the car. The roar of the explosion joined with the crunch of steel on rock into a single, ear-splitting din.

Almost simultaneously there came a blast that demolished the tail of the car, hurling Romano and Helva out of their seats and into the wind-shield.

Red-lined darkness settled over their minds.

ROMANO awoke feeling a soft, warm hand upon his forehead and a grinding ache behind his eyes. Cautiously testing his vision, he found the countenance of Helva Hansen filling his field of view.

"Welcome home," she said.

Romano replied with an incoherent groan, and surveyed his environment sufficiently to discover that he was flat on his back on the floor of an air car whose motion was barely perceptible. He made as though to get up, but a firm hand on his chest and the anguish in his cranium weakened his intention before he had moved far.

"Hey there," Helva's voice reached his consciousness as though from a great distance. "You've suffered quite a nasty concussion. Doctor says you stay flat on your back for the next day or so."

She fed him a drink very slowly.

After a few minutes he was able to say: "Where in all the four confounded dimensions are we going?"

Helva smiled sweetly at him. He was really recovering.

"Back to the hotel, of course. You may thank your pal Fido for getting us out of the wreck. The big lug picked us up bodily and carried us out. My sides still ache. The car was blown completely to bits."

"Old Fido's really worth his keep then?"

Romano looked gratefully at the robot and patted one of the legs of the huge bulk. "Nice work, old man. I'll buy you a can of lubricating oil when we get back."

A sensation of baffled curiosity crept into his mind. "What happened to the wreck? Where'd this fine car come from?" he demanded to know.

"Courtesy of Robot Service. Apparently when a car gets smacked, Robot Service knows when, where, and how. It wouldn't do for the ho-

tel to have its guests lost all over the asteroid."

A slight clicking in the automatic pilot, and a feeling as though the car were changing direction drew Helva's attention to the window.

"We're back already, Jack. Do you walk quietly to your bed, or will I have to carry you?"

"First I must do one thing. Then I'll do anything you say. But first one thing. We must find out who was away from the hotel in an air car at the time we were shot down. We get that dope, and we have the case tied up fast in our fat little fists."

They found, however, when they stopped at the Robot Service office, that the case had dribbled completely out of their hands.

Everybody, it seemed, had chosen that particular time to go dashing about the asteroid in his air car. Romano doggedly wrote every name down.

Jennahagan, the Venusian drug manufacturer.

John Grimmenden, the retired machine builder.

Jerrold Wald, Sigmund Wald's playboy nephew.

And Christopher Chavanne himself.

It came back to these four people then.

The same four who had sat at the table that very morning. Incredible that it had been just that morning. That same four who had known—of all the people on the asteroid—that the memory bank in the Robot Service center was disconnected, and that orders to robots would not be recorded.

Helva Hansen entered the room, followed by a robot bearing two dinner trays.

"One for you and one for me," she said, setting her own meal out on a small table.

Romano looked at the tray which the robot set on his bed. A feeling of regret twisted his mouth.

"This is not a pleasant way for us to spend our first evening together."

She touched his hand lightly.

After the robot had removed the dishes, Romano felt himself overcome with sleep. Helva sat beside him for a few minutes, then left quietly.

**A**FTER TEN hours' sleep, the throbbing in Romano's head had quieted to a dull ache. As he was swallowing a white tablet and debating whether to shave himself or to visit the barber, Chavanne walked into the room with a greeting of revolting heartiness.

"Sorry to hear about your...uh... accident. I hope you are well."

"Well enough. Let me have two minutes while I shave my face," he asked of Chavanne, "and I'll join you in breakfast."

"I've just had lunch," Chavanne smiled, "but another cup of coffee never hurt."

Depends on what's in it, Romano thought.

Aloud, he said, "I need your help. I want you to tell me everything you know about some of the people here."

Chavanne shrugged, cautiously. "What could I know? These people are strangers to me. They come here for a few weeks or months. I see little of them."

Romano said deliberately, "You seem to be quite friendly with Grimmenden, Jennahagan and Wald. They're the only ones I'm interested in."

"And myself also? I was out in an air car when you were shot down. I'm one of your suspects, too...eh?"

Romano smiled at him candidly. "Sure. You're a prize suspect." He wiped his face. "Shall we go to breakfast?"

They found Helva Hansen already in the dining room.

"How's the head?" she asked.

"Still where I left it last night," he replied. "I'm beginning to think it's very nice having a doctor so handy."

"Are you sure?" she replied sweetly. "Do you think you could stand being healthy all the time?"

"Sounds repulsive."

Breakfast arrived, diverting his attention for a few minutes.

**P**RESENTLY he said, "You know, Chavanne, it would be very useful if one of your calculating machines could be used as a mystery solver. Put in all the clues, turn the crank, and grind out all the answers."

Chavanne smiled. "It would be very nice, if you could be certain that you have *all* the evidence. This may involve almost an infinity of items, including the entire life history of all the participants, the psychological factors involved, the motivations. It becomes very intricate.

"However, I don't think it's necessary here. I think I can tell you who your man is."

Romano exploded slightly. "What!"

Helva stiffened in her seat, was more cautious. "Are you sure?" she asked. "Or are you only guessing?"

Chavanne shook his head. "Not guessing. Deducing. Furthermore, I can tell you what it was you were not supposed to see while you were wandering among the hills."

Romano stared at Chavanne, felt himself growing hot.

"You mean to say you knew this all along, and yet you let us go out there and get shot up without telling us?"

Chavanne dropped his eyes, and his great bulk made slight squirming motions.

"The situation," he said, "is rather embarrassing for me. Say that it's

delicate."

"You see, I'm being blackmailed," he continued. "I tell this to you only because the person blackmailing me is the one who caused Wald's murder and who tried to murder you. I know you can keep my secret because catching the murderer will depend upon it. When the police come it will be all over anyway."

Chavanne leaned back in his chair and wearily massaged the spot between his eyes.

"I'll be disgraced, but at least my life will be safe."

Helva suddenly felt that she'd been here before. To her professional ear, the exaggerated dramatization was as transparent as a glass window.

"Okay," she said, dryly. "So you've been a bad boy. We'll forgive you, but what's the story?"

Chavanne lowered his eyes, his fingers playing with the coffee spoon. "For some time now a narcotics smuggling ring has been using this asteroid as a base of operations.

"At first this smuggling was kept secret even from me, and by the time I found out these men were well established and were able to make certain threats..."

"And certain offers?" Romano interjected. "How much did they pay you?"

Chavanne chuckled. "You're a smart boy. What they paid me was barely enough to make up my losses in running this hotel. As long as they didn't bother me and nobody got into trouble, I didn't mind. But now it's gotten into the killing stage and the Interplanetary Police are on their way. I'm pulling out of the deal. The question is, will they let me?"

**D**RUMMING with stiff fingers upon the table top, Romano thought fast and hard. "So the mys-

terious business out in the mountains that I was about to stumble on was what? Their center of operations for the smuggling game? Their cache?"

Chavanne nodded.

But... Romano quickly shuffled the card index of his mind, dealt out the four names which could be involved, and chose the only one which fit.

"It's Jennahagan, of course," he said.

Chavanne, lighting a cigar, smiled. "I said you were smart, boy. Yes, he's the one." He leaned forward conspiratorially. "But I think Jerrold Wald is in this also. Who had better chance to knock off his uncle?"

Chavanne rose ponderously. "I must get back to the shop. Take my advice and keep this under your hat. Sit tight until the police arrive. This is their job."

"Wait a minute—wait a minute." Romano, vaguely dissatisfied, clutched for a vagrant thought. "Grimmenden—how does he fit into this? What was he doing out in his aircar the time we were attacked?"

Chavanne flashed a brilliant smile and waved his cigar triumphantly. His air of polished composure had returned in a phenomenal manner. "Well, my boy, I don't really know. Grimmenden is the type of character who gets himself into the middle of everything, but who doesn't say anything. You see him all around, but you don't know anything about him. And if you—let's say—send back to Earth for information on him, you'll find there isn't any. There isn't any John Grimmenden, retired manufacturer of machinery.

"You know what I think? I think Grimmenden is a narcotics agent from the Interplanetary Police. After all, you don't think that the police are

going to let this asteroid go without keeping an eye on it?"

And, with an odd sort of cheerfulness, considering the death of Sigmund Wald, the sundry attacks, and the overshadowing presence of the narcotics agent, Chavanne walked off.

Romano leaned towards Helva and asked fiercely, "Do you remember how Jerrold Wald nearly had himself a fit when I mentioned plutonium poisoning yesterday? You didn't miss it, I know."

Helva retreated behind her professional mask. Romano, in a sudden spurt of insight, recognized this as a clear sign of conflict.

"Hey," he said. "What's between you and Jerrold Wald?"

Her eyes blazed a hot flame at him. "Jerrold Wald is a patient of mine. I know everything about him. I know him better than he knows himself."

Romano produced a meditative whistle. "So that's what you're doing around here. A nice way to make a living."

**H**ELVA brought her temper down two octaves. "It's a good living. And a useful one. I'll tell you about Jerrold. It's not violating professional secrecy. You could check on it yourself by calling the right people."

"Go ahead," he said. "I'm listening.

The psychiatrist spoke quietly and intently. "Jerrold Wald had a good reason to react when you mentioned plutonium poisoning. Three years ago he killed a man that way—in the very way his uncle was killed. He was a neurotic young character—wild and spoiled. The murder was proven, clear and fair. Five hundred years ago he'd have been hung without further ado."

Shakily reaching for a cigarette,

Romano felt his mind lurch off in all directions, instantly building up a vast structure of possibilities. First and simplest: Jerrold had killed once, and he could go off his rocker and kill again in the same way. Second, he could be framed by someone who knew that he had killed before and who planted things to make it look like the same pattern. Third, Jerrold had nothing at all to do with it, but was scared half to death because he was afraid somebody would make a connection with what had happened three years ago.

Returning from his wild loop of thought-association, he heard Helva Hansen continue: "The court sentenced him to confinement with psychiatric treatment. After almost three years of this he was considered sufficiently cured to be returned to society. Then his uncle, Sigmund Wald, brought him here to Doreen and hired me to continue the treatment."

"That was quite expensive for Uncle. Why was he so interested?"

"Wald's main reason for coming here was to do some special research with the help of Chavanne's calculators. He thought it would do Jerrold some good to get away from Earth and at the same time continue his therapy. He hasn't had to support me completely, as I've acquired a few patients among the other guests here, while having a well-earned vacation on the side. Everybody's been killing two birds with one stone."

"And I was nearly one of the birds." Romano, with ruthless tenacity, insisted upon returning to the number one subject. "Why do you think Jerrold is innocent now? Can it be you are afraid to admit that one of your patients has relapsed after you thought you had him cured?"

HELVA SAT silently for a full minute, searching her mind for indications of her reactions towards Jerrold's behavior.

"I knew that Jerrold had gotten into bad company here," she said slowly. "The question in my mind is: how much can he keep hidden from me, his doctor? I honestly believe I would have known immediately if Jerrold had killed his uncle.

"In spite of the coincidence that Sigmund Wald was killed by the same method that Jerrold used three years ago, and, in spite of the fact that he was the closest to Sigmund and could have poisoned his coffee with the least difficulty—in spite of that I think he didn't do it. And I don't think he shot at us in the aircar. His mind was once sick enough for him to be a poisoner, but I'd be very ashamed of my abilities if he were no better now."

Romano reached a long distance to a wild assumption. "Why does it have to be that the same person did both jobs? Maybe Jerrold did poison his uncle while somebody else—perhaps Jennahagan—went after me."

Helva stretched her arms and stood up from the chair. "Maybe this and maybe that. Look. Give me one hour alone with Jerrold and I will know for certain whether he did or didn't. I tell you I know Jerrold Wald better than he knows himself. Literally."

Romano believed it.

"Okay," he said, following Helva out of the dining room. "So Jerrold didn't kill his uncle, and Chavanne is talking through his hat. What does that do to the story about the dope-smuggling and Jerrold's connection with Jennahagan?"

"The smuggling is plausible. As for Jerrold..." Helva stopped in the center of the doorway. "I think," she said, "that he can be very useful to

us. I'm sure he can."

**R**OMANO paced outside the door like an expectant father, scattering cigarette butts along the hall and holding a desultory conversation with Fido. Helva had been inside the room with Jerrold Wald for an hour by now, and Romano winced as he imagined the intense psychological pressures that she would be exerting upon Jerrold, utilizing the intimate knowledge of his mind that she had gained through dozens of hours of psychoanalytic interviews and through all the various techniques at her command.

He was certain that Jerrold could keep no secret from Helva for long.

Finally they emerged from the room—Helva quietly triumphant, and Jerrold pale but with less anxiety than he had shown before. Romano knew the signs. Jerrold had purged himself of his conflicts due to his activities with the smugglers and was back on the path towards mental peace.

"He's clear," Helva announced to Romano. "I was right. Jerrold didn't poison his uncle."

"Then it must have been Jennahagan?"

Helva paused, her mind occupied with the puzzle. "Jerrold doesn't know. The story about the dope-smuggling is true. Jennahagan is using this asteroid as a warehouse for the stuff. Jerrold has been playing around with him for the past few weeks. He got involved in gambling, needed money, and was led right down the path by Jennahagan. But apparently Jennahagan hasn't been telling Jerrold everything. He doesn't know anything about the death of his uncle, and he's been scared to death ever since the whole thing started. He's glad to be through with Jennahagan, and he'll

do anything we want."

Romano tossed away another butt. "Fine thing. But what do we want? Where's Jennahagan?"

"That's the catch. Right now Jennahagan is packing up, getting ready to leave. With the police on their way, it's getting too hot for him. He's out by his dope cache now, and if we wait until the police come he'll be gone."

**R**OMANO could see what was coming, and a violent feeling of reluctance swept over him. "So we should go out and pick up Jennahagan ourselves? Get all shot up again? The man's dangerous."

"Ha. You were the demon reporter all set to catch criminals, write a big story, and get a big bonus."

"So I was. It took a knock on my head to remind me that this is a game people play for keeps. A man can get hurt this way. But what's your big interest in this? What sudden passion makes you so anxious to foil the villain? I'll bet it's not a pure and sweet desire for justice."

Romano's eyes suddenly narrowed. "Oho. I get it. The evidence still points to Jerrold as having done it in his uncle. Professional pride is sitting on your neck. You have to prove Jerrold innocent because he is your patient and you'd be a sad case of a psychiatrist if your patient upped and poisoned his uncle."

Helva, suddenly furious, turned her back. "All right. Then wait for the police."

Romano caught her by the shoulders and turned her around. "Don't go away mad," he said. "Wait a minute and I'll pick up my gun. It might come in handy. And you had better put on some more suitable clothes."

An hour later, Romano felt that this

was where he had come in. Once more he sat in an aircar hurtling through the thin air a mile above the surface of the asteroid. Again Helva Hansen was at his side, and Fido, the robot bodyguard, stood in the rear.

This time, in addition, there was the thin, nervous form of Jerrold Wald, wedged in between Romano and the psychiatrist.

Now there was no searching for an unknown object, no circling and hesitation. Their trajectory arrowed directly toward a precisely-known destination. In almost complete darkness, only the dim lights of the instrument panel and the red tip of the cigarette smoked by Jerrold Wald were visible to Romano's eyes.

**I**NNUMERABLE times Romano tried to visualize what he would find at the destination, tried to plan what action he would take. His heart beat slightly louder in his ears as he felt the small gun in his pocket.

He kept telling himself that this was nonsense, that he was a photographer and a reporter, not a policeman, that he had no business sallying forth in this manner to capture a smuggler and a murderer.

It took a woman to drive a man to this sort of thing.

"I would like to know," Romano said, "what happened to Grimmenden."

Helva shrugged her shoulders. "He's nowhere to be found. I checked everywhere I could think of—with Robot Service, with the hotel desk, with Chavanne himself. Disappeared."

An uneasiness insinuated itself into Romano's mind. "A real unknown quantity," he said. "Tell me, Jerrold, what do you think of Chavanne's theory about Grimmenden?"

"That he's a narcotics agent?" Jerrold asked. "Who knows? He hung

around Jennahagan a lot, but it never meant anything as far as I could see."

"The fact that he's disappeared could mean that he got to Jennahagan before we did. It would be good to know."

Romano felt himself tighten up as they approached their destination. In a few minutes Jerrold Wald motioned the others to keep quiet. Switching on the radiophone, he called Jennahagan, giving an identification code.

"That you, Jerrold?" Jennahagan's voice came through.

"Yes. You said you needed some help. I'll be down in thirty seconds. Give me a beam."

The aircar swooped downward in the darkness, the robot pilot steering its way along the directional beam from Jennahagan. Mountains loomed over their heads, blotting out the stars. Then there was the crunch of gravel under the car wheels and the feeling of motion ceased.

The three climbed out of the car onto the bare ground. Ahead of them loomed the almost-invisible form of a small spaceship. Focussing their eyes in the direction of a loud clattering noise, they saw a robot clamber down from the dark entrance of the ship, walk along a path for several yards, and then disappear into a low building which was partly obscured by a towering group of rocks.

Jerrold set out towards this building, motioning for the others to follow him. Fido took up the rear. As they neared the door, a robot emerged carrying a huge box.

They passed the robot and entered the door, single file. Jerrold went first. Perspiration on his forehead glistened in the light that came from an inner room as he opened its door.

Jennahagan looked up from the filing cabinet he was examining and nodded as he saw Jerrold enter.

"Good thing you came. You can speed things up by helping the robots move the stuff off the shelves. I'm moving out in ten minutes."

Romano slipped quickly through the door, allowing Fido to follow him instantly. "No you're not," he said. "We'd like to talk a little bit about the murder of Sigmund Wald."

"What the hell!" Jennahagan roared, and reached for his gun pocket.

"Hold him, Fido," Romano snapped.

**T**HE GREAT form of the robot leaped forward, smashed into Jennahagan's round, hard body, and pinned his arms to his sides, even as he had one hand already in the pocket, clutching a gun.

As he gasped for breath, Helva Hansen came through the door. She walked up to Jennahagan, held motionless by the robot, and said, "You heard what the man said. We want to talk about a murder."

Jennahagan strained against the robot's arms. The red in his face deepened as he shouted in fury, "I don't know what you're talking about."

"We don't intend to waste time," Helva said, removing a tiny hypodermic kit from her shoulder bag. "You're a little excited. The doctor recommends a sedative. Then you can talk."

She approached his arm with a needle.

"Drop that thing, Doctor!"

The hard, high-pitched voice from the doorway sent a wave of shock through Romano's nervous system. As he whirled around he heard Helva's gasping intake of breath, and a moment later the click of the needle as it struck the floor.

"Fido, get him!" Romano barked, diving for cover.

The robot dropped Jennahagan,

thrust him aside, charged across the room toward the door, and met a pair of slugs that tore his middle open with a shower of tiny metal parts.

John Grimmenden, standing in the doorway, held his gun quite steady in a small, gnarled hand.

"Let's have no more of this nonsense," he advised them. "Nobody in this outfit has killed anybody on this asteroid and we're not going to unless you give us trouble. We're closing up shop temporarily because we don't care to be around while the police are looking for murderers.

"You don't think we'd bungle a job as thoroughly as that try on you? We're *professionals*."

His eyes fixed steadily on Romano and Helva Hansen, he snapped to Jennahagan: "All right, get on your feet and see that the loading is finished so we can clear out of here."

**J**ENNAHAGAN clambered heavily to his feet, rage stiffening every muscle of his body. He walked towards Romano, fists clenched.

Grimmenden waved him back. "None of that now. They'll get what's coming to them, but our first job is to get out of here. By the time the police arrive we're going to be completely lost in this big solar system of ours."

"Let me kill them," Jennahagan demanded fiercely.

Grimmenden shook his head. "That would be amateurish," he said. "It would be unaesthetic. I have an aversion to committing murders that might be traced to me. We don't have time to do the kind of job which would be necessary here."

Grimmenden seated himself on a desk, the gun still unwavering in his fist, not for one instant allowing Romano a chance to draw his own weapon.



"But it's not necessary to kill them. These two will be sorry that they meddled into our business and, as for our friend Jerrold Wald, he will deeply regret his little double-cross."

For the next ten minutes the robots diligently removed packages from shelves and stored them in the bowels of the spaceship, while the three—Romano, Helva Hansen, and the quietly hysterical Jerrold Wald—watched in silence.

Finally the work was completed. Grimmenden backed cautiously through the door and said, in a deriding voice, "It's a long walk back."

He slammed the door shut and they heard various thudding noises on the other side, followed by footsteps rapidly retreating outside. As they rushed to open the door there was the sound of two gun shots, followed by crashings and clatterings.

They wrestled with the door—finally opened it to find one of the robots leaning inertly against it. Its bulk slid to the floor with a crash and they dashed outside in time to see the spaceship lift from the ground and disappear among the stars.

**W**ITH GRIM cheerfulness Romano surveyed the scene. The controls of both air cars had been smashed by bullets. The power equipment had been rendered useless. There was water, but no food. No means of communication of any form.

Romano grinned paradoxically at Helva. "It really does look like a long walk back," he said, chuckling. "About a hundred miles, wouldn't you say, Jerrold?"

Helva Hansen had been observing him with restrained astonishment for the five minutes that had gone by since the spaceship had left them stranded. Presently she said, "Okay, Jack, what's the joke? Either you've

gone slightly psychotic, which I doubt, or you have something up your sleeve. Give."

Romano sat himself down on a rock outside the door of the building, still laughing to himself.

"Oh, they did a beautiful job of it! We're completely isolated. Only way we can get back is to hike a hundred miles over hill and dale. We could probably make it, but we wouldn't like it.

"Yes, Grimmenden's a real smart egg. Aesthetic objections to murder, ha.

"Except he forgot one very interesting point. This is such a wonderful asteroid we are on. We are waited on hand and foot by robots. Robot Service is at hand every minute of the day. Even the aircars are run by robots, and whenever something goes wrong with one of the cars, the central office knows it immediately and sends out help. Like the time we were shot down before."

Helva gave a sudden shout of laughter. "Oh, lovely. As soon as Grimmenden shot up our air car he gave notice directly to the central office."

Even Jerrold Wald cheered up at this. "Then all we have to do is wait!" And he, too, began to laugh.

**T**HE ONLY feeling of regret which insinuated itself into his mind, producing a feeling of emptiness inside himself, came when he saw how Helva Hansen and Jack Romano held each other's hands, how they looked at each other, and how they laughed.

He turned away from them abruptly, his mouth twisted. It hurt, even being the third in the crowd. He turned back to the other two, stirring about in his mind for something to say, something with which to interrupt them.

"Chavanne was pretty far off base,

though he had known from the very beginning that for him the psychiatrist was unattainable.

Suddenly he felt conversation necessary. He felt that he could not stand wasn't he?" he said. "Thinking that Grimmenden was a narcotics agent. When all the time he was the big boss of the gang. Grimmenden was certainly one smart person. He never let me know who he was, even when I was working for him."

Romano gave a start and dropped Helva's hands, his mind abruptly brought back from a great distance. "Chavanne was far off base on many things," he growled. "He's been off base ever since the moment he tried to kill me without noticing that I was wearing a radiation detector."

Jerrold Wald blinked his eyes rapidly. "It would have to be him, wouldn't it? By simple elimination, if nothing else."

"Of course!" Helva snapped, a flush of anger on her face. "Once I was satisfied that you were not the one, it had to be either Chavanne, Grimmenden, or Jennahagan. The moment Chavanne suggested it might be the smugglers I knew he was lying. I knew it by the sound of his voice. I knew it because the method of killing was wrong. A gang of smugglers doesn't mess around with radioactivity and poisoning. When they kill, they kill."

"No, the murder of your uncle and the attempt on Jack looked like an amateur job, not a professional one. But we had to come here to make sure. We had to question Jennahagan."

"A job we certainly botched up," Romano laughed unhappily.

"Indeed we did. But I'm satisfied that the smuggling business and the murders are not connected. This leaves Chavanne."

"IT ADDS up," Romano thought back carefully. "Chavanne owns

the asteroid, runs everything on it. He could fix the robot memory bank so that it would not record his orders to the robots concerning the murders, and at the same time he told some of the others that orders were not being recorded just to give him a scapegoat in case something went wrong with his plan to make the murders seem like natural deaths. He had two beautiful scapegoats—the smugglers, and you, Jerrold.

"Chavanne could sit back and order the robots to do all his dirty work, while passing around his little rumors about who might have been the killer. He could blast the door of the radioactive dump, just to confuse the trail. At the same time he could play with me, recommend that I get a robot bodyguard. This threw suspicion away from him, while he could get rid of the robot any time he pleased.

"Chavanne was the one who knew where we were going the time we started to investigate the area of radioactivity. He was the one who waited there for us and shot us down.

"At that point he slipped up. His overconfidence threw him for a loss, because the robot bodyguard warned us—the robot that he himself had given to me. But his original, fatal slip lay in not recognizing the radiation detectors that Wald and I wore in our belts. He probably even went to the trouble of putting out of commission the detector in Wald's wrist watch so that it would seem plausible for Wald to walk into the radioactive area by mistake.

"Chavanne could do all this better than anyone else because he had the run of the hotel and because the robots were all under his command."

"But why?" Jerrold wanted to know. "Why?"

"There," said Helva, "is a question."

"Our first guess must still be right," Romano insisted. "Sigmund Wald and I were on the verge of discovering something important connected with the radioactive area. We find out what that was, and we have the entire story."

"It is hard to think of what it might be. Rare minerals? Valuable metals? Chavanne already owns the asteroid. Why should he worry about who discovers them?"

**R**OMANO shrugged his shoulders. "Who knows? Maybe the answer is not logical at all. Certainly Chavanne is not quite sane. A person who commits murder to hide a secret is by definition insane. Who says the motive has to be logical?"

They had to be satisfied with that for the time being. Further conversation circled hopelessly to no conclusion.

After a time, Jerrold asked, "How long should it take for an aircar to come?"

They had taken to watching the sky intently, looking for the glistening of the sun on a metallic speck.

Helva said slowly, "It took less than an hour the other time."

By now three hours had gone.

The tiny sun rose into a cloudless, incredibly deep blue sky. With utmost patience its imperceptible motion carried it high until, over the top of its arc, it began to descend.

Conversation grew more and more sparse as the day dragged along.

Romano searched through the building once more, could find nothing to eat. Hunger was beginning to claw at their bellies.

When the sun was setting, with no sign of rescue in the sky, Romano said, "We'd better start thinking."

Helva nodded her head. "Chavanne learns," she said meditatively. "He remembered how we were picked up

the other time, and he made sure that it would not happen again, by disconnecting the alarm circuits. We're not going to be rescued, because Chavanne fixed it that way."

Romano clenched his fists slowly, unclenched them, and exhaled a breath with a slight shudder over his entire body. "Another bit added onto the debt he owes us."

"We'll die of starvation," Jerrold whined.

"No, Jerrold," Helva said quietly. "There's a good supply of water. We can last long enough to walk back to the hotel."

"We need a map," Romano said, abruptly.

Jerrold Wald looked up. "There was one in my aircar."

**R**OMANO leaped to his feet and ran to the car. In a moment he returned, waving the paper triumphantly.

"Finally a break for our side," he said, breathlessly. He spread the map out on the ground, and the three squatted about it, straining their eyes in the meager twilight.

"We're here, and the hotel is there," Romano pointed out. He spread a pair of fingers to use as calipers and laid off the distance. "It's closer to one hundred and ten miles," he grunted. "Not good, but it could be worse. With flat terrain we could do it in four days. But with the rugged landscape on this rock... Maybe we'll find enough to eat to keep us going. I still have my gun..."

As he gazed at the map and recalled the rocky land that he had painted during the past week, the feeling of hunger within him turned into a sensation of sickening dread. In his imagination there blossomed a minutely detailed picture of the march that would be required through the wild country, without supplies, without

guidance, with unaccustomed bodies.

"But it's not impossible," he said, his voice filled with an effort to prevent hopelessness from showing through. "Among the mountains there are little valleys where we will be able to find plants and animals. We'll get along."

"Yeah." Jerrold's shoulders shook quietly.

"We'll need water containers. All we can carry. We'll need any knives we can find."

With a knife, Romano killed an unsuspecting and unafraid rabbit. It broiled deliciously over an open fire. Hunger put aside for another day, and strength restored, they continued across the grassy plain.

This gave them an easy ten miles, after which Romano insisted that they halt for the night. His planned route included two more such oases, and there was no need for the three to kill themselves with over-exhaustion.

More important, he wanted to be at the edge of the radioactive area the next morning.

The place was so poorly marked that had it not been for his close attention to the map, Romano would have missed it entirely. One signpost was actually found, but for the rest, a person could have wandered into the dangerous circle without warning.

Romano checked his counter. It registered nothing but normal cosmic ray background. He raised a querulous eyebrow to Helva.

"Of course," he said, dubiously, "the circle is ten miles in diameter, and the actual radioactive section might be just in the center of it."

"If there is any there at all," Helva said, indifferently.

The thought struck deeply and rocked Romano back on his heels. "It fits," he said. "And yet it doesn't fit. If Chavanne were trying to hide

something in there, the easy way would be to mark it *radioactive area* on the map and put a fence around it. But then why would he kill off Sigmund Wald and try to kill me for going near the place? We wouldn't have tried to go into the danger zone.

"If this place is actually not radioactive, it makes the mystery harder to understand. I think we should go in a little further."

Jerrold Wald grumbled at the extra walking, but he had no alternative. Romano had the map.

**T**HE TERRAIN began to get rocky once more, and they stumbled with many curses through the jagged, splintered crystals. Romano stopped every hundred yards to read his tiny radiation meter. Finally, after they had gone over a mile, he began to get results.

"Gamma rays are coming through over the background. They become stronger as we approach the center. Chavanne was telling the truth for a change. The place is really loaded with hot stuff."

"We go back to the hotel now?" Jerrold demanded.

Romano nodded, wearily. He hated to give up the idea that the radioactive area was connected with the murder, untenable as the idea had turned out to be. Worst of all, elimination of the radioactive circle as the location of Chavanne's secret put them right back where they were at the beginning.

It left them knowing absolutely nothing.

Carefully consulting the map, Romano laid out a line of progress in a new direction, and the three proceeded to plod forward. It was uphill for a long distance, and agony in their legs began to compete with the emptiness in their stomachs.

When the sun was three quarters of the way set, Romano called a halt, and they proceeded to tear apart the cold carcass of the small animal they had killed and roasted in the valley that morning.

**WITH MUCH** coaxing, Romano induced the other two to rise and make a few more miles before nightfall, much as he himself longed for rest. They dragged themselves to the top of the hill and stood for a moment, panting for breath.

Helva Hansen seated herself on the ground and said, "Jack we simply must stop for the night. I'm finished."

Romano ruffled her hair with his hand. "Okay, baby. You'll feel better tomorrow. I'll look for a soft rock to use as a bed."

The light from the sun cut across the craggy spires almost horizontally. Ahead of them was a precipitous drop into a shallow canyon hemmed in by bare, flinty walls. Romano's heart sank very low as he surveyed the path they had to traverse the next day.

Abruptly every muscle in his body stiffened and the jump of his heart sent the blood roaring in his ears. What his eyes had caught was a round metallic shape which reflected the light in a brilliant glare. From a distance its size could not well be judged but, comparing it with the height of the canyon walls, Romano was certain that it must be a thing of tremendous dimensions.

He shouted for the others to come and look. They scrambled to his side and stood for many minutes peering with mind-wrenching curiosity at the spaceship. A ship of this magnitude had simply no business in this place. It was an absurdity that made them quite certain this was the secret Chavanne was hiding. This was the ship whose presence had caused

the death of Sigmund Wald and had finally brought them to this place.

It was late the next morning before they managed to clamber down to it. The gigantic silvery bulk towered far above their heads and stretched an incredible distance forward and backwards.

"What a monster!" Romano hoarsely exclaimed. "How long has this been here?"

Helva's eyes darted in all directions, taking in every detail of its appearance, noticing that there was not a crack or a dented plate.

They walked around it. On its nose they saw great golden letters which spelled out a name whose syllables tumbled among forgotten memories in Romano's mind: *GALAXY I*.

"You know this ship?" Helva asked.

Romano shook his head. "I heard its name mentioned just once before. Years ago. By a couple of the wildest scientists in the solar system. They were talking about the possibility of traveling faster than the speed of light. They told me that, believe it or not, a faster-than-light ship had actually been built—the *GALAXY I*. Imagine—over a hundred years ago men were able to travel faster than light!

"But this was just at the beginning of the third interplanetary war. The ship disappeared, and the laboratories in which the faster-than-light principle—the superdrive—had been developed were wiped out, together with most of the continent. All records were lost, and today the *GALAXY I* is little more than a rumor."

"While all the time it has been hidden here." Helva tilted her head back to see the letters welded to the prow. "No wonder Chavanne was willing to commit murder to keep this secret. If he could duplicate the superdrive it would make him one of the

most important men in the system.”

“NOT ONLY IN THE SYSTEM, BUT IN THE ENTIRE GALAXY.”

The voice, amplified to tremendous proportions, reverberated among the rocks of the canyon, bouncing back and forth until it died out in a muttering thunder.

The three jerked their heads source of the voice.

“If you will come to the entrance port of this ship,” the voice continued, “I shall be happy to receive you.”

Romano grasped Helva’s arm and whispered into her ear, “It’s Chavanne, inside the ship. He’s been watching and listening to us—for how long?”

The psychiatrist nodded. “The man is dangerous. Watch your step.”

**T**HEY WALKED slowly around the ship, hugging its sides, until they reached the great entrance port. There was nobody to be seen.

“Where are you, Chavanne?” Romano called.

“Inside, of course,” Chavanne’s voice boomed out. “Come in and join me. Don’t stand out there in the hot sun.” He laughed.

Romano stood in place, hands on hips. “We’d like it better if you came out here to talk to us,” he said.

Chavanne’s voice snapped with impatience. “I said you come in!”

A blast of energy spurted dazzlingly from a projector at the side of the port, throwing up a gush of flame and pulverized rock from the ground behind them.

Jerrold Wald cried out in fright and stumbled forward. Romano, his face rigid with anger said, “I guess we’d better go in, like the man said.”

The entrance port opened into a large hallway that drove straight through to the geometrical axis of the ship, where were located elevators

and conveyor belts. The ship was empty of life and completely still except for the voice of Chavanne issuing from one loudspeaker after another as they passed along the corridor.

Following the directions of Chavanne they came to a bulkhead in the center of which a great round port stood open. The sign-plate above the port read: *LIFEBOAT NUMBER 1.*

The three stopped before the port. “Suppose we don’t go in?” Romano demanded.

For answer there was the crash of a heavy door in the bulkhead behind them.

“There’s only one way out now,” Chavanne’s voice told them unemotionally. “You either go into the lifeboat, or you stay where you are and starve to death.”

“Is there a choice?” Romano muttered, and stepped through the port. The other two followed, passing the double doorway and into the cramped quarters of the lifeboat.

As Romano expected, the heavy steel plug slammed shut behind them.

**R**OMANO’S fury put an unsteady edge on his face. “We certainly walked into this, we did,” he growled. “Anybody with an IQ higher than a chimpanzee’s could have seen this play coming, but we walk right into it, eyes open, on our own feet.”

Helva put her hand on his arm. “Don’t blame yourself. Once Chavanne saw us coming there wasn’t a thing we could have done.”

Jerrold Wald, completely undone, collapsed into a chair.

There was only one thing to do, Helva decided, and that was to keep Chavanne talking. Her only weapon was her voice and her knowledge of the human mind.

“Chavanne,” she said. “Are you listening?”

“Listening, my dear,” Chavanne’s

voice said conversationally.

"It would be so much more pleasant to see you, rather than talk to a microphone."

"I'm afraid that this is not to be a pleasure call. These are working hours, and there is work to be done."

Work! Romano drew a wild guess from his subconscious.

"Chavanne, have you gotten the superdrive operating yet?"

"Of course. The superdrive has been working for over a month. One final test is required. It has been difficult to decide how this test should be conducted. Your fortunate visit here has solved the difficulty."

"Yes?" Romano waited.

"You see, at the beginning of the Third Interplanetary War this ship was hidden on this asteroid while certain changes were made. When the time came for the ship to join the wrong. A flaw had developed in the wrong. A flaw had developed in the superdrive generators. The moment power was applied to the preliminary geowarper, every man in this ship died. The ship remained where it was, unharmed.

"Between the confusion of the war and the destruction of the records, almost all memory of this ship was lost. Fifteen years ago, when I was compiling material for the information bank at Washington, I came across sufficient data, hidden in an obsolete file, to allow me to calculate where this ship might be. I followed it up, found the ship, and bought the asteroid. For the past ten years I have studied the principles of the geowarp and the superdrive, so that I will be able to duplicate them myself."

"That was very remarkable, Chavanne." Helva thought that a slight amount of oil would help.

"Indeed. And the results of my work are not going to be stolen from

me. First it was Sigmund Wald, the old fraud. He thought I wouldn't know why a force-field expert would be nosing around here. Then Romano began to spy around. Very clever, posing as a photographer, but it was quite transparent."

"LOOK, CHAVANNE," Romano broke in. "You can't keep us here. The police will be arriving in two days and when we turn up dead or missing you will be in trouble."

"No trouble at all," Chavanne denied. "The fact that the smuggler Jennahagan has departed abruptly will be considered very significant. In the meantime you are going to be useful to me. You are going to perform an experiment for me."

"An experiment!"

"A very simple one from your point of view. You simply remain where you are and talk to me. No trouble at all."

"And what will this prove?"

"If you remain alive while traveling on the superdrive, it will prove that I have corrected the fault which killed the previous operators of the ship. I am sure that my work has been good, and so you may expect a pleasant trip."

Chavanne's voice cut off and remained unresponsive to any further conversation. In a moment they heard the thudding sound of heavy relays closing on the other side of a partition in the lifeboat. Heavy machinery whined into sudden activity.

Romano stormed about the room in sudden panic. The large exit port was locked. There were two inner doors, one fore and one aft. There was no furniture except for five padded seats. The walls were lined with cupboards, now empty. There was nothing to get a grip on. Nothing to break.

Helva sat back in one of the seats, her eyes partly closed. "Take it

easy," she told Romano, in a tired voice. "No use knocking your head against a stone wall."

Chavanne's voice came to them again from the concealed loudspeaker. "We are now ready to begin. The lifeboat will leave the *GALAXY I* and take a course away from the sun. I hope to receive frequent reports from you."

A powerful whine arose from outside the boat, and they felt a strong sense of motion as the catapult ejected them from an opening in the side of the great spaceship. The generators within the lifeboat acquired a deep, complex set of beat noises.

"The superdrive is on now," Chavanne said, "and you are traveling at double light speed. I would appreciate hearing a word from you."

**R**OMANO raised an eyebrow at Helva. Would anything be gained by keeping Chavanne in ignorance as to the outcome of his experiment?

"I wouldn't try holding out on me," Chavanne said, mildly. "You see, if I think that you are dead, then I shall allow the boat to travel out into interstellar space. If you say something to let me know that all is well. . ."

"Then I suppose you'll bring us back to talk to the police," Romano snarled. "You rotten liar. I think you're nothing but a bluff, a fake. How can you talk to us by radio if we are traveling faster than light?"

Chavanne chuckled. "This is perhaps the most interesting aspect of the geowarp principle. Communication and remote control of the boat is effected, not through the electromagnetic four-dimensional spacetime continuum, but through a five-dimensional hyperspacetime embedded in a six-dimensional continuum. The Lorentz—what the—!"

Chavanne's voice broke off on a

note of shocked alarm. In the background there was the buzz of a warning signal.

"Damn! A spaceship overhead." The voice was remote, as though Chavanne had moved to the other side of the control room.

Romano and Helva Hansen stared at each other. Jerrold Wald leaped out of the seat in which he had been slumped.

"It's the police!" he cried. "It must be!"

The sounds coming through the communicator were indecipherable—the noises of Chavanne moving around the control room, muttered curses, the clicks of switches being operated.

"The police were not due for another two days at least." Helva could not permit herself the luxury of false hope. "And even if it is the police, they are down there and we are up here. How can they help us?"

"We could—" Romano began, and stopped abruptly, the speed of his thoughts far outracing his words. If it were the police, and if somehow they got into the control room where Chavanne stood, and where the police could hear them through the communicator—then a warning could be given—a message could be spoken. But he must not give Chavanne the idea.

**A**T THAT moment the noises from the communicator ceased, leaving a vacuum of sound in the tiny room.

Jerrold Wald choked, "He's cut us off," and collapsed again into a chair. Helva Hansen buried her face in Romano's shoulder as he held her very close to him.

In complete silence now, they hurtled through space, past the orbit of Jupiter, on towards Saturn and the unimaginable stretches of void be-



yond. Completely cut off from the four-dimensional universe, leaving behind the spectrum of electromagnetic vibrations, powerless to change the course of their little vessel, they huddled in the lifeboat, nerves drained of emotion.

Savagely, Romano pulled himself away from Helva. "There must be controls to this boat," he rasped, moving swiftly to one of the locked inner doors.

It was solid, impossible to jar with his body. Compared to the massive outer locks, however, it was relatively fragile. Loading his gun with an explosive shell, Romano aimed at the lock and motioned the others to stand back. The blast of the shell tore at their eardrums and left a small, ragged hole in the metal of the door.

Romano pushed through and found the control room a tiny cubby, jammed with instruments. Their bewildering array marched across the face of the console. He stopped short in front of them.

He felt Helva close behind him. "It's dark outside," she said.

Jerkily, he looked up, and for the first time realized that the black panels above the control console were transparent.

"You wouldn't expect to see stars out there while we are traveling on the superdrive, would you?" he heard Helva say.

**H**E SHOOK his head dumbly. Faced with the black emptiness of subspace outside the boat, and with the maze of unfamiliar instruments on the panel in front of him, he felt a congealing dismay in his heart. He was just as lost with the controls under his hand as he was while locked in the other room.

He said, fighting back his panic, "If we sit down quietly, we can figure this out. All we have to do is

stop and go back in the direction we came from."

"Are you sure? What do you know about the geometry of five-dimensional spacetime imbedded in a six-dimensional continuum?"

"Not a damn thing." But as he continued to study the control panel, his equilibrium began to return. Each function was labeled. The number of operations was limited.

"First thing," he said, "we get back into normal space and see where we are. I don't understand this method of determining position."

He reached his hands out, hoping that he performed the operations in the correct order, and began snapping switches. His breath came hard as he waited for the results.

Nothing happened.

Finally Romano sat back in his chair, cursing long, fluently, and unblushingly. "The boat's wired for remote control. The manuals don't work."

He felt this to be the final insult. The last opportunity for them to turn back had been stolen from them. There was nothing left but to open the air valve and finish things quickly.

They sat silently in front of the control panel, gazing out of the windows into the featureless subspace. After an indefinite time, Romano said, "I wonder if we have passed Pluto yet."

Then they sat in a wordless stupor for a further period of time.

**T**HE COMMUNICATOR burst into activity. "Captain Mellor of the Interplanetary Police speaking. Are you all right?"

"Yes, we're all right! Where is Chavanne? Don't let him get away."

"Chavanne is here, under arrest. You are being returned to Doreen."

The lifeboat landed beneath the

towering prow of the *GALAXY I*. The Interplanetary Police ship shared the crowded canyon floor with them.

In the executive office of the police ship they saw Chavanne, crumpled in a chair, his head in his hands. Bedraggled and dusty, they approached Captain Mellor.

"Let's eat, Captain," Romano pleaded, "then talk."

The missing threads of the story wove themselves into place around the dining table.

"As we approached Doreen, our instruments detected the operation of a geowarper," Captain Mellor related. "We droye to the source of the disturbance and apparently arrived just a few minutes after your boat took off. We landed and met Chavanne at the entrance port of the *GALAXY I*. He seemed normal enough at first, but the moment we asked him what he was doing with a geowarper he went into a fury and said something incoherent about how he was the only person in the solar system who knew about geo-

warpers and the only one who knew how to build a superdrive.

"We had to give him a shot of a hypno-drug before he'd tell us what was going on and how we could make contact with you people."

Helva's eyes sparkled. "His paranoid mentality could not conceive of the idea that other men, by independent research, could rediscover the superdrive. To him, a scientific discovery was a *secret*, that had to be stolen, that had to be guarded."

At a point in spacetime one hundred miles away and ten hours later, Romano walked jauntily into the communications room at the hotel, with Helva hanging onto one arm. They entered a booth and Romano seated himself at the little table there to teletype the message:

*"Dr. Felice Romano, Cybernetics Research Institute, Mexico City, Mexico. Hello, mother. Thanks for the dope on Helva Hansen. Yes, this is it."*

THE END