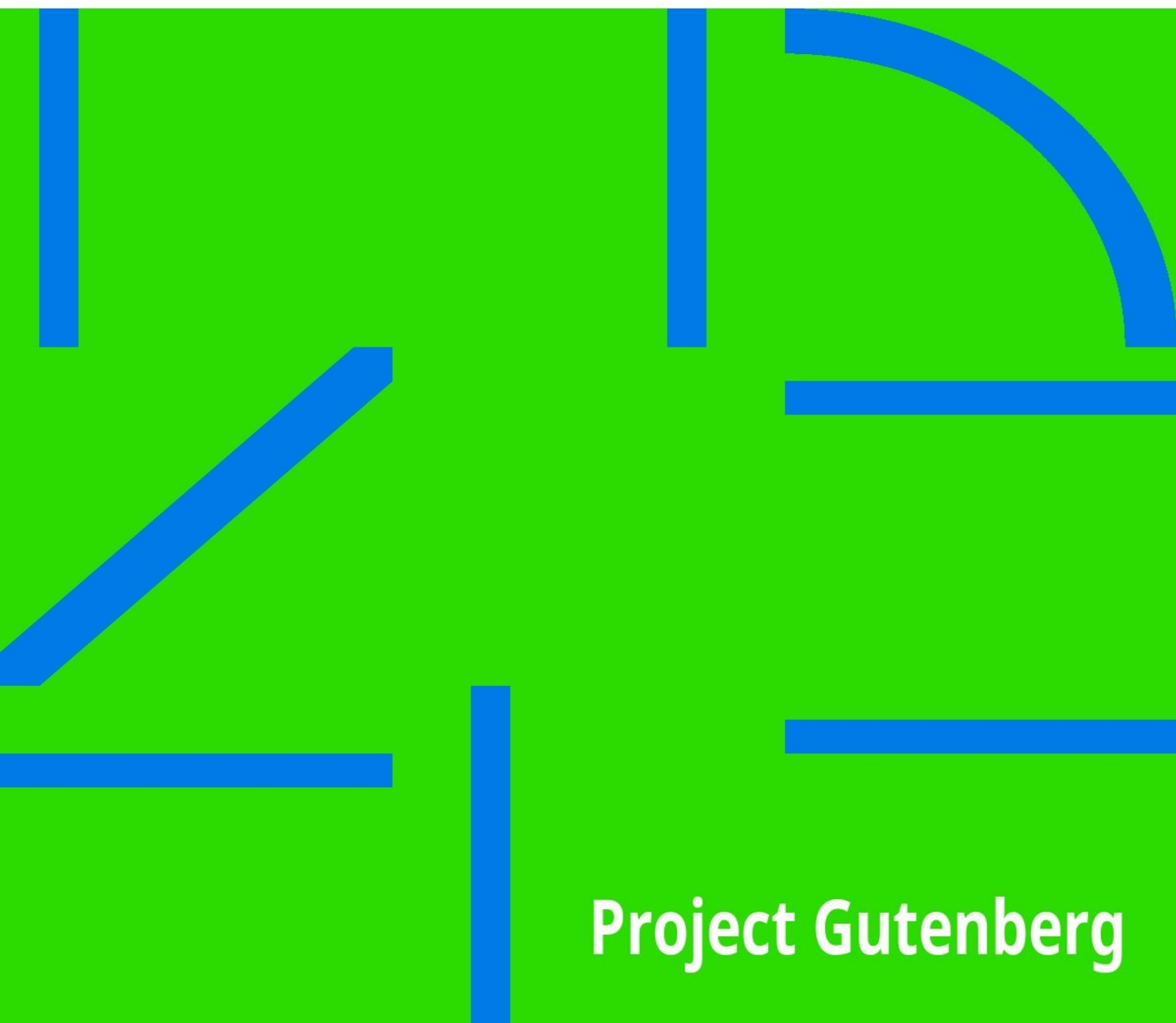


Thin Edge

Randall Garrett



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THIN EDGE

There are inventions of great value that one type of society can use
—and that would, for another society, be most nastily deadly!

**BY JOHNATHAN
BLAKE MAC KENZIE**

ILLUSTRATED BY JOHN SCHOENHERR

I

"Beep!" said the radio smugly. "*Beep! Beep! Beep!*"

"There's one," said the man at the pickup controls of tugship 431. He checked the numbers on the various dials of his instruments. Then he carefully marked down in his log book the facts that the radio finder was radiating its beep on such-and-such a frequency and that that frequency and that rate-of-beep indicated that the asteroid had been found and set with anchor by a Captain Jules St. Simon. The direction and distance were duly noted.

That information on direction and distance had already been transmitted to the instruments of the tugship's pilot. "Jazzy-o!" said the pilot. "Got 'im."

He swiveled his ship around until the nose was in line with the beep and then jammed down on the forward accelerator for a few seconds. Then he took his foot off it and waited while the ship approached the asteroid.

In the darkness of space, only points of light were visible. Off to the left, the sun was a small, glaring spot of whiteness that couldn't be looked at directly. Even out here in the Belt, between the orbits of Mars and Jupiter, that massive stellar engine blasted out enough energy to make it uncomfortable to look at with the naked eye. But it could illuminate matter only; the hard vacuum of space remained dark. The pilot could have located the planets easily, without looking around. He knew where each and every one of them were. He had to.

A man can navigate in space by instrument, and he can take the time to figure out where every planet ought to be. But if he does, he won't really be able to navigate in the Asteroid Belt.

In the Nineteenth Century, Mark Twain pointed out that a steamboat pilot who navigated a ship up and down the Mississippi had to be able to identify every landmark and every changing sandbar along the river before he would be allowed to take charge of the wheel. He not only had to memorize the whole river, but be able to predict the changes in its course and the variations in its eddies. He had to be able to know exactly where he was at every moment, even in the blackest of moonless nights, simply by glancing around him.

An asteroid man has to be able to do the same thing. The human mind is capable of it, and one thing that the men and women of the Belt Cities had learned was to use the human mind.

"Looks like a big 'un, Jack," said the instrument man. His eyes were on the radar screen. It not only gave him a picture of the body of the slowly spinning mountain, but the distance and the angular and radial velocities. A duplicate of the instrument gave the same information to the pilot.

The asteroid was fairly large as such planetary debris went—some five hundred meters in diameter, with a mass of around one hundred seventy-four million metric tons.



Within twenty meters of the surface of the great mountain of stone, the pilot brought the ship to a dead stop in relation to that surface.

"Looks like she's got a nice spin on her," he said. "We'll see."

He waited for what he knew would appear somewhere near the equator of the slowly revolving mass. It did. A silvery splash of paint that had originally been squirted on by the anchor man who had first spotted the asteroid in order to check the rotational velocity.

The pilot of the space tug waited until the blotch was centered in the crosshairs of his peeper and then punched the timer. When it came around again, he would be able to compute the angular momentum of the gigantic rock.

"Where's he got his anchor set?" the pilot asked his instrument man.

"The beep's from the North Pole," the instrument man reported instantly. "How's her spin?"

"Wait a bit. The spot hasn't come round again yet. Looks like we'll have some fun with her, though." He kept three stars fixed carefully in his spotters to make sure he didn't drift enough to throw his calculations off. And waited.

Meanwhile, the instrument man abandoned his radar panel and turned to the locker where his vacuum suit waited at the ready. By the time the pilot had seen the splotch of silver come round again and timed it, the instrument man was

ready in his vacuum suit.

"Sixteen minutes, forty seconds," the pilot reported. "Angular momentum one point one times ten to the twenty-first gram centimeters squared per second."

"So we play Ride 'Em Cowboy," the instrument man said "I'm evacuating. Tell me when." He had already poised his finger over the switch that would pull the air from his compartments, which had been sealed off from the pilot's compartment when the timing had started.

"Start the pump," said the pilot.

The switch was pressed, and the pumps began to evacuate the air from the compartment. At the same time, the pilot jockeyed the ship to a position over the north pole of the asteroid.

"Over" isn't quite the right word. "Next to" is not much better, but at least it has no implied up-and-down orientation. The surface gravity of the asteroid was only two millionths of a Standard Gee, which is hardly enough to give any noticeable impression to the human nervous system.

"Surface at two meters," said the pilot. "Holding."



The instrument man opened the outer door and saw the surface of the gigantic rock a couple of yards in front of him. And projecting from that surface was the eye of an eyebolt that had been firmly anchored in the depths of the asteroid, a nickel-steel shaft thirty feet long and eight inches in diameter, of which only the eye at the end showed.

The instrument man checked to make sure that his safety line was firmly anchored and then pushed himself across the intervening space to grasp the eye with a space-gloved hand.

This was the anchor.

Moving a nickel-iron asteroid across space to nearest processing plant is a relatively simple job. You slap a powerful electromagnet on her, pour on the juice, and off you go.

The stony asteroids are a different matter. You have to have something to latch on to, and that's where the anchor-setter comes in. His job is to put that anchor in there. That's the first space job a man can get in the Belt, the only way to get space experience. Working by himself, a man learns to preserve his own life out there.

Operating a space tug, on the other hand, is a two-man job because a man cannot both be on the surface of the asteroid and in his ship at the same time. But every space tug man has had long experience as an anchor setter before he's allowed to be in a position where he is capable of killing someone besides himself if he makes a stupid mistake in that deadly vacuum.

"On contact, Jack," the instrument man said as soon as he had a firm grip on the anchor. "Release safety line."

"Safety line released, Harry," Jack's voice said in his earphones.

Jack had pressed a switch that released the ship's end of the safety line so that it now floated free. Harry pulled it towards himself and attached the free end to the eye of the anchor bolt, on a loop of nickel-steel that had been placed there for that purpose. "Safety line secured," he reported. "Ready for tug line."

In the pilot's compartment, Jack manipulated the controls again. The ship moved away from the asteroid and yawed around so that the "tail" was pointed toward the anchor bolt. Protruding from a special port was a heavy-duty universal joint with special attachments. Harry reached out, grasped it with one hand, and pulled it toward him, guiding it toward the eyebolt. A cable attached to its other end snaked out of the tug.

Harry worked hard for some ten or fifteen minutes to get the universal joint firmly bolted to the eye of the anchor. When he was through, he said: "O.K., Jack. Try 'er."

The tug moved gently away from the asteroid, and the cable that bound the two together became taut. Harry carefully inspected his handiwork to make sure that everything had been done properly and that the mechanism would stand the stress.

"So far so good," he muttered, more to himself than to Jack.

Then he carefully set two compact little strain gauges on the anchor itself, at ninety degrees from each other on the circumference of the huge anchor bolt.

Two others were already in position in the universal joint itself. When everything was ready, he said: "Give 'er a try at length."

The tug moved away from the asteroid, paying out the cable as it went.

Hauling around an asteroid that had a mass on the order of one hundred seventy-four million metric tons required adequate preparation. The nonmagnetic stony asteroids are an absolute necessity for the Belt Cities. In order to live, man needs oxygen, and there is no trace of an atmosphere on any of the little Belt worlds except that which Man has made himself and sealed off to prevent it from escaping into space. Carefully conserved though that oxygen is, no process is or can be one hundred per cent efficient. There will be leakage into space, and that which is lost must be replaced. To bring oxygen from Earth in liquid form would be outrageously expensive and even more outrageously inefficient—and no other planet in the System has free oxygen for the taking. It is much easier to use Solar energy to take it out of its compounds, and those compounds are much more readily available in space, where it is not necessary to fight the gravitational pull of a planet to get them. The stony asteroids average thirty-six per cent oxygen by mass; the rest of it is silicon, magnesium, aluminum, nickel, and calcium, with respectable traces of sodium, chromium, phosphorous manganese, cobalt, potassium, and titanium. The metallic nickel-iron asteroids made an excellent source of export products to ship to Earth, but the stony asteroids were for home consumption.

This particular asteroid presented problems. Not highly unusual problems, but problems nonetheless. It was massive and had a high rate of spin. In addition, its axis of spin was at an angle of eighty-one degrees to the direction in which the tug would have to tow it to get it to the processing plant. The asteroid was, in effect, a huge gyroscope, and it would take quite a bit of push to get that axis tilted in the direction that Harry Morgan and Jack Latrobe wanted it to go. In theory, they could just have latched on, pulled, and let the thing precess in any way it wanted to. The trouble is that that would not have been too good for the anchor bolt. A steady pull on the anchor bolt was one thing: a nickel-steel bolt like that could take a pull of close to twelve million pounds as long as that pull was along the axis. Flexing it—which would happen if they let the asteroid precess at will—would soon fatigue even that heavy bolt.

The cable they didn't have to worry about. Each strand was a fine wire of two-phase material—the harder phase being borazon, the softer being tungsten carbide. Winding these fine wires into a cable made a flexible rope that was

essentially a three-phase material—with the vacuum of space acting as the third phase. With a tensile strength above a hundred million pounds per square inch, a half inch cable could easily apply more pressure to that anchor than it could take. There was a need for that strong cable: a snapping cable that is suddenly released from a tension of many millions of pounds can be dangerous in the extreme, forming a writhing whip that can lash through a spacesuit as though it did not exist. What damage it did to flesh and bone after that was of minor importance; a man who loses all his air in explosive decompression certainly has very little use for flesh and bone thereafter.

"All O.K. here," Jack's voice came over Harry's headphones.

"And here," Harry said. The strain gauges showed nothing out of the ordinary.

"O.K. Let's see if we can flip this monster over," Harry said, satisfied that the equipment would take the stress that would be applied to it.

He did not suspect the kind of stress that would be applied to him within a few short months.

II

The hotel manager was a small-minded man with a narrow-minded outlook and a brain that was almost totally unable to learn. He was, in short, a "normal" Earthman. He took one look at the card that had been dropped on his desk from the chute of the registration computer and reacted. His thin gray brows drew down over his cobralike brown eyes, and he muttered, "Ridiculous!" under his breath.

The registration computer wouldn't have sent him the card if there hadn't been something odd about it, and odd things happened so rarely that the manager took immediate notice of it. One look at the title before the name told him everything he needed to know. Or so he thought.

The registration robot handled routine things routinely. If they were not routine, the card was dropped on the manager's desk. It was then the manager's job to fit everything back into the routine. He grasped the card firmly between thumb and forefinger and stalked out of his office. He took an elevator down to the registration desk. His trouble was that he had seized upon the first thing he saw wrong with the card and saw nothing thereafter. To him, "out of the ordinary" meant "wrong"—which was where he made his mistake.

There was a man waiting impatiently at the desk. He had put the card that had been given him by the registration robot on the desk and was tapping his fingers on it.

The manager walked over to him. "Morgan, Harry?" he asked with a firm but not arrogant voice.

"Is this the city of York, New?" asked the man. There was a touch of cold humor in his voice that made the manager look more closely at him. He weighed perhaps two-twenty and stood a shade over six-two, but it was the look in the blue eyes and the bearing of the man's body that made the manager suddenly feel as though this man were someone extraordinary. That, of course, meant "wrong."

Then the question that the man had asked in rebuttal to his own penetrated the manager's mind, and he became puzzled. "Er ... I beg your pardon?"

"I said, 'Is this York, New?'" the man repeated.

"This is New York, if that's what you mean," the manager said.

"Then I am Harry Morgan, if that's what you mean."

The manager, for want of anything better to do to cover his confusion, glanced back at the card—without really looking at it. Then he looked back up at the face of Harry Morgan. "Evidently you have not turned in your Citizen's Identification Card for renewal, Mr. Morgan," he said briskly. As long as he was on familiar ground, he knew how to handle himself.

"Odd's Fish!" said Morgan with utter sadness, "How did you know?"

The manager's comfortable feeling of rightness had returned. "You can't hope to fool a registration robot, Mr. Morgan," he said "When a discrepancy is observed, the robot immediately notifies a person in authority. Two months ago, Government Edict 7-3356-Hb abolished titles of courtesy absolutely and finally. You Englishmen have clung to them for far longer than one would think possible, but that has been abolished." He flicked the card with a finger. "You have registered here as 'Commodore Sir Harry Morgan'—obviously, that is the name and anti-social title registered on your card. When you put the card into the registration robot, the error was immediately noted and I was notified. You should not be using an out-of-date card, and I will be forced to notify the Citizen's Registration Bureau."

"Forced?" said Morgan in mild amazement. "Dear me! What a terribly strong word."

The manager felt the hook bite, but he could no more resist the impulse to continue than a cat could resist catnip. His brain did not have the ability to overcome his instinct. And his instinct was wrong. "You may consider yourself under arrest, Mr. Morgan."

"I thank you for that permission," Morgan said with a happy smile. "But I think I shall not take advantage of it." He stood there with that same happy smile while two hotel security guards walked up and stood beside him, having been called by the manager's signal.

Again it took the manager a little time to realize what Morgan had said. He blinked. "Advantage of it?" he repeated haphazardly.

Harry Morgan's smile vanished as though it had never been. His blue eyes seemed to change from the soft blue of a cloudless sky to the steely blue of a polished revolver. Oddly enough, his lips did not change. They still seemed to smile, although the smile had gone.

"Manager," he said deliberately, "if you will pardon my using your title, you evidently cannot read."

The manager had not lived in the atmosphere of the Earth's Citizen's Welfare State as long as he had without knowing that dogs eat dogs. He looked back at the card that had been delivered to his desk only minutes before and this time he read it thoroughly. Then, with a gesture, he signaled the Security men to return to their posts. But he did not take his eyes from the card.

"My apologies," Morgan said when the Security police had retired out of earshot. There was no apology in the tone of his voice. "I perceive that you can read. Bully, may I say, for you." The bantering tone was still in his voice, the pseudo-smile still on his lips, the chill of cold steel still in his eyes. "I realize that titles of courtesy are illegal on earth," he continued, "because courtesy itself is illegal. However, the title 'Commodore' simply means that I am entitled to command a spaceship containing two or more persons other than myself. Therefore, it is not a title of courtesy, but of ability."

The manager had long since realized that he was dealing with a Belt man, not an Earth citizen, and that the registration robot had sent him the card because of that, not because there was anything illegal. Men from the Belt did not come to Earth either willingly or often.

Still unable to override his instincts—which erroneously told him that there was something "wrong"—the manager said: "What does the 'Sir' mean?"

Harry Morgan glowed warmly. "Well, now, Mr. Manager, I will tell you. I will give you an analogy. In the time of the Roman Republic, twenty-one centuries or so ago, the leader of an Army was given the title *Imperator*. But that title could not be conferred upon him by the Senate of Rome nor by anyone else in power. No man could call himself *Imperator* until his own soldiers, the men under him, had publicly acclaimed him as such. If, voluntarily, his own men shouted 'Ave, *Imperator!*' at a public gathering, then the man could claim the title. Later the title degenerated—" He stopped.

The manager was staring at him with uncomprehending eyes, and Morgan's outward smile became genuine. "Sorry," he said condescendingly. "I forgot that history is not a popular subject in the Welfare World." Morgan had forgotten no such thing, but he went right on. "What I meant to say was that the spacemen of the Belt Cities have voluntarily agreed among themselves to call me 'sir'. Whether that is a title of ability or a title of courtesy, you can argue about with me at another time. Right now, I want my room key."

Under the regulations, the manager knew there was nothing else he could do. He had made a mistake, and he knew that he had. If he had only taken the trouble to read the rest of the card—

"Awfully sorry, Mr. Morgan," he said with a lopsided smile that didn't even look genuine. "The—"

"Watch those courtesy titles," Morgan reprimanded gently. "'Mister' comes ultimately from the Latin *magister*, meaning 'master' or 'teacher'. And while I may be your master, I wouldn't dare think I could teach you anything."

"All citizens are entitled to be called 'Mister'," the manager said with a puzzled look. He pushed a room key across the desk.

"Which just goes to show you," said Harry Morgan, picking up the key.

He turned casually, took one or two steps away from the registration desk, then—quite suddenly—did an about-face and snapped: "*What happened to Jack Latrobe?*"

"Who?" said the manager, his face gaping stupidly.

Harry Morgan knew human beings, and he was fairly certain that the manager couldn't have reacted that way unless he honestly had no notion of what Morgan was talking about.

He smiled sweetly. "Never you mind, dear boy. Thank you for the key." He turned again and headed for the elevator bank, confident that the manager would find the question he had asked about Jack Latrobe so completely meaningless as to be incapable of registering as a useful memory.

He was perfectly right.

III

The Belt Cities could survive without the help of Earth, and the Supreme Congress of the United Nations of Earth knew it. But they also knew that "survive" did not by any means have the same semantic or factual content as "live comfortably". If Earth were to vanish overnight, the people of the Belt would live, but they would be seriously handicapped. On the other hand, the people of Earth could survive—as they had for millennia—without the Belt Cities, and while doing without Belt imports might be painful, it would by no means be deadly.

But both the Belt Cities and the Earth knew that the destruction of one would mean the collapse of the other as a civilization.

Earth needed iron. Belt iron was cheap. The big iron deposits of Earth were worked out, and the metal had been widely scattered. The removal of the asteroids as a cheap source would mean that iron would become prohibitively expensive. Without cheap iron, Earth's civilization would have to undergo a painfully drastic change—a collapse and regeneration.

But the Belt Cities were handicapped by the fact that they had had as yet neither the time nor the resources to manufacture anything but absolute necessities. Cloth, for example, was imported from Earth. A society that is still busy struggling for the bare necessities—such as manufacturing its own air—has no time to build the huge looms necessary to weave cloth ... or to make clothes, except on a minor scale. Food? You can have hydroponic gardens on an asteroid, but raising beef cattle, even on Ceres, was difficult. Eventually, perhaps, but not yet.

The Belt Cities were populated by pioneers who still had not given up the luxuries of civilization. Their one weakness was that they had their cake and were happily eating it, too.

Not that Harry Morgan didn't realize that fact. A Belt man is, above all, a realist, in that he must, of necessity, understand the Laws of the Universe and deal with them. Or die.

Commodore Sir Harry Morgan was well aware of the stir he had created in the

lobby of the Grand Central Hotel. Word would leak out, and he knew it. The scene had been created for just that purpose.

*"Grasshopper sittin' on a railroad track,
Singin' polly-wolly-doodle-alla-day!
A-pickin' his teeth with a carpet tack,
Singin' polly-wolly-doodle-alla-day!"*

He sang with gusto as the elevator lifted him up to the seventy-fourth floor of the Grand Central Hotel. The other passengers in the car did not look at him directly; they cast sidelong glances.

This guy, they seemed to think in unison, is a nut. We will pay no attention to him, since he probably does not really exist. Even if he does, we will pay no attention in the hope that he will go away.

On the seventy-fourth floor, he *did* go away, heading for his room. He keyed open the door and strolled over to the phone, where a message had already been dropped into the receiver slot. He picked it up and read it.

COMMODORE SIR HARRY MORGAN, RM. 7426, GCH:
REQUEST YOU CALL EDWAY TARNHORST,
REPRESENTATIVE OF THE PEOPLE OF GREATER LOS
ANGELES, SUPREME CONGRESS. PUNCH 33-981-762-044
COLLECT.

"How news travels," Harry Morgan thought to himself. He tapped out the number on the keyboard of the phone and waited for the panel to light up. When it did, it showed a man in his middle fifties with a lean, ascetic face and graying hair, which gave him a look of saintly wisdom.



"Mr. Tarnhorst?" Morgan asked pleasantly.

"Yes. Commodore Morgan?" The voice was smooth and precise.

"At your service, Mr. Tarnhorst. You asked me to call."

"Yes. What is the purpose of your visit to Earth, commodore?" The question was quick, decisive, and firm.

Harry Morgan kept his affability. "That's none of your business, Mr. Tarnhorst."

Tarnhorst's face didn't change. "Perhaps your superiors haven't told you, but—and I can only disclose this on a sealed circuit—I am in sympathy with the Belt Cities. I have been out there twice and have learned to appreciate the vigor and worth of the Belt people. I am on your side, commodore, in so far as it does not compromise my position. My record shows that I have fought for the rights of the Belt Cities on the floor of the Supreme Congress. Have you been informed of that fact?"

"I have," said Harry Morgan. "And that is precisely why it is none of your business. The less you know, Mr. Tarnhorst, the safer you will be. I am not here as a representative of any of the City governments. I am not here as a representative of any of the Belt Corporations. I am completely on my own, without official backing. You have shown yourself to be sympathetic towards us in the past. We have no desire to hurt you. Therefore I advise that you either keep your nose out of my business or actively work against me. You cannot protect yourself otherwise."

Edward Tarnhorst was an Earthman, but he was not stupid. He had managed to put himself in a position of power in the Welfare World, and he knew how to handle that power. It took him exactly two seconds to make his decision.

"You misunderstand me, commodore," he said coldly. "I asked what I asked because I desire information. The People's Government is trying to solve the murder of Commodore Jack Latrobe. Assuming, of course, that it was murder—which is open to doubt. His body was found three days ago in Fort Tryon Park, up on the north end of Manhattan Island. He had apparently jumped off one of the old stone bridges up there and fell ninety feet to his death. On the other hand, it is possible that, not being used to the effects of a field of point nine eight Standard gees, he did not realize that the fall would be deadly, and accidentally killed himself. He was alone in the park at night, as far as we can tell. It has been ascertained definitely that no representative of the People's Manufacturing Corporation Number 873 was with him at the time. Nor, so far as we can discover, was anyone else. I asked you to call because I wanted to know if you had any information for us. There was no other reason."

"I haven't seen Jack since he left Juno," Morgan said evenly. "I don't know why he came to Earth, and I know nothing else."

"Then I see no further need for conversation," Tarnhorst said. "Thank you for

your assistance, Commodore Morgan. If Earth's Government needs you again, you will be notified if you gain any further information, you may call this number. Thank you again. Good-by."

The screen went blank.

How much of this is a trap? Morgan thought.

There was no way of knowing at this point. Morgan knew that Jack Latrobe had neither committed suicide nor died accidentally, and Tarnhorst had told him as much. Tarnhorst was still friendly, but he had taken the hint and got himself out of danger. There had been one very important piece of information. The denial that any representative of PMC 873 had been involved. PMC 873 was a manufacturer of biological products—one of the several corporations that Latrobe had been empowered to discuss business with when he had been sent to Earth by the Belt Corporations Council. Tarnhorst would not have mentioned them negatively unless he intended to imply a positive hint. Obviously. Almost too obviously.

Well?

Harry Morgan punched for Information, got it, got a number, and punched that.

"People's Manufacturing Corporation Ey-yut Seven Tha-ree," said a recorded voice. "Your desire, pu-leeze?"

"This is Commodore Jack Latrobe," Morgan said gently. "I'm getting tired of this place, and if you don't let me out I will blow the whole place to Kingdom Come. Good bye-eye-eye."

He hung up without waiting for an answer.

Then he looked around the hotel suite he had rented. It was an expensive one—very expensive. It consisted of an outer room—a "sitting room" as it might have been called two centuries before—and a bedroom. Plus a bathroom.

Harry Morgan, a piratical smile on his face, opened the bathroom door and left it that way. Then he went into the bedroom. His luggage had already been delivered by the lift tube, and was sitting on the floor. He put both suitcases on

the bed, where they would be in plain sight from the sitting room. Then he made certain preparations for invaders.

He left the door between the sitting room and the bedroom open and left the suite.

Fifteen minutes later, he was walking down 42nd Street toward Sixth Avenue. On his left was the ancient Public Library Building. In the middle of the block, somebody shoved something hard into his left kidney and said. "Keep walking, commodore. But do what you're told."

Harry Morgan obeyed, with an utterly happy smile on his lips.

IV

In the Grand Central Hotel, a man moved down the hallway toward Suite 7426. He stopped at the door and inserted the key he held in his hand, twisting it as it entered the keyhole. The electronic locks chuckled, and the door swung open.

The man closed it behind him.

He was not a big man, but neither was he undersized. He was five-ten and weighed perhaps a hundred and sixty-five pounds. His face was dark of skin and had a hard, determined expression on it. He looked as though he had spent the last thirty of his thirty-five years of life stealing from his family and cheating his friends.

He looked around the sitting room. Nothing. He tossed the key in his hand and then shoved it into his pocket. He walked over to the nearest couch and prodded at it. He took an instrument out of his inside jacket pocket and looked at it.

"Nothin'," he said to himself. "Nothin'." His detector showed that there were no electronic devices hidden in the room—at least, none that he did not already know about.

He prowled around the sitting room for several minutes, looking at everything—chairs, desk, windows, floor—everything. He found nothing. He had not expected to, since the occupant, a Belt man named Harry Morgan, had only been in the suite a few minutes.

Then he walked over to the door that separated the sitting room from the bedroom. Through it, he could see the suitcases sitting temptingly on the bed.

Again he took his detector out of his pocket. After a full minute, he was satisfied that there was no sign of any complex gadgetry that could warn the occupant that anyone had entered the room. Certainly there was nothing deadly around.

Then a half-grin came over the man's cunning face. There was always the chance that the occupant of the suite had rigged up a really old-fashioned trap.

He looked carefully at the hinges of the door. Nothing. There were no tiny bits of paper that would fall if he pushed the door open any further, no little threads that

would be broken.

It hadn't really seemed likely, after all. The door was open wide enough for a man to walk through without moving it.

Still grinning, the man reached out toward the door.

He was quite astonished when his hand didn't reach the door itself.

There was a sharp feeling of pain when his hand fell to the floor, severed at the wrist.

The man stared at his twitching hand on the floor. He blinked stupidly while his wrist gushed blood. Then, almost automatically, he stepped forward to pick up his hand.

As he shuffled forward, he felt a *snick! snick!* of pain in his ankles while all sensation from his feet went dead.

It was not until he began toppling forward that he realized that his feet were still sitting calmly on the floor in their shoes and that he was no longer connected to them.

It was too late. He was already falling.

He felt a stinging sensation in his throat and then nothing more as the drop in blood pressure rendered him unconscious.

His hand lay, where it had fallen. His feet remained standing. His body fell to the floor with a resounding *thud!* His head bounced once and then rolled under the bed.

When his heart quit pumping, the blood quit spurting.

A tiny device on the doorjamb, down near the floor, went *zzzt!* and then there was silence.

V

When Representative Edway Tarnhorst cut off the call that had come from Harry Morgan, he turned around and faced the other man in the room. "Satisfactory?" he said.

"Yes. Yes, of course," said the other. He was a tall, hearty-looking man with a reddish face and a friendly smile. "You said just the right thing, Edway. Just the right thing. You're pretty smart, you know that? You got what it takes." He chuckled. "They'll never figure anything out now." He waved a hand toward the chair. "Sit down, Edway. Want a drink?"

Tarnhorst sat down and folded his hands. He looked down at them as if he were really interested in the flat, uncut diamond, engraved with the Tarnhorst arms, that gleamed on the ring on his finger.

"A little glass of whiskey wouldn't hurt much, Sam," he said, looking up from his hands. He smiled. "As you say, there isn't much to worry about now. If Morgan goes to the police, they'll give him the same information."

Sam Fergus handed Tarnhorst a drink. "Damn right. Who's to know?" He chuckled again and sat down. "That was pretty good. Yes sir, pretty good. Just because he thought that when you voted for the Belt Cities you were on their side, he believed what you said. Hell, *I've* voted on their side when it was the right thing to do. Haven't I now, Ed? Haven't I?"

"Sure you have," said Tarnhorst with an easy smile. "So have a lot of us."

"Sure we have," Fergus repeated. His grin was huge. Then it changed to a frown. "I don't figure them sometimes. Those Belt people are crazy. Why wouldn't they give us the process for making that cable of theirs? Why?" He looked up at Tarnhorst with a genuinely puzzled look on his face. "I mean, you'd think they thought that the laws of nature were private property or something. They don't have the right outlook. A man finds out something like that, he ought to give it to the human race, hadn't he, Edway? How come those Belt people want to keep something like that secret?"

Edway Tarnhorst massaged the bridge of his nose with a thumb and forefinger,

his eyes closed. "I don't know, Sam. I really don't know. Selfish, is all I can say."

Selfish? he thought. *Is it really selfish? Where is the dividing line? How much is a man entitled to keep secret, for his own benefit, and how much should he tell for the public?*

He glanced again at the coat of arms carved into the surface of the diamond. A thousand years ago, his ancestors had carved themselves a tiny empire out of middle Europe—a few hundred acres, no more. Enough to keep one family in luxury while the serfs had a bare existence. They had conquered by the sword and ruled by the sword. They had taken all and given nothing.

But had they? The Barons of Tarnhorst had not really lived much better than their serfs had lived. More clothes and more food, perhaps, and a few baubles—diamonds and fine silks and warm furs. But no Baron Tarnhorst had ever allowed his serfs to starve, for that would not be economically sound. And each Baron had been the dispenser of Justice; he had been Law in his land. Without him, there would have been anarchy among the ignorant peasants, since they were certainly not fit to govern themselves a thousand years ago.

Were they any better fit today? Tarnhorst wondered. For a full millennium, men had been trying, by mass education and by mass information, to bring the peasants up to the level of the nobles. Had that plan succeeded? Or had the intelligent ones simply been forced to conform to the actions of the masses? Had the nobles made peasants of themselves instead?

Edway Tarnhorst didn't honestly know. All he knew was that he saw a new spark of human life, a spark of intelligence, a spark of ability, out in the Belt. He didn't dare tell anyone—he hardly dared admit it to himself—but he thought those people were better somehow than the common clods of Earth. Those people didn't think that just because a man could slop color all over an otherwise innocent sheet of canvas, making outré and garish patterns, that that made him an artist. They didn't think that just because a man could write nonsense and use erratic typography, that that made him a poet. They had other beliefs, too, that Edway Tarnhorst saw only dimly, but he saw them well enough to know that they were better beliefs than the obviously stupid belief that every human being had as much right to respect and dignity as every other, that a man had a *right* to be respected, that he *deserved* it. Out there, they thought that a man had a right only to what he earned.

But Edway Tarnhorst was as much a product of his own society as Sam Fergus.

He could only behave as he had been taught. Only on occasion—on very special occasion—could his native intelligence override the "common sense" that he had been taught. Only when an emergency arose. But when one did, Edway Tarnhorst, in spite of his environmental upbringing, was equal to the occasion.

Actually, his own mind was never really clear on the subject. He did the best he could with the confusion he had to work with.

"Now we've got to be careful, Sam," he said. "Very careful. We don't want a war with the Belt Cities."

Sam Fergus snorted. "They wouldn't dare. We got 'em outnumbered a thousand to one."

"Not if they drop a rock on us," Tarnhorst said quietly.

"They wouldn't dare," Fergus repeated.

But both of them could see what would happen to any city on Earth if one of the Belt ships decided to shift the orbit of a good-sized asteroid so that it would strike Earth. A few hundred thousand tons of rock coming in at ten miles per second would be far more devastating than an expensive H-bomb.

"They wouldn't dare," Fergus said again.

"Nevertheless," Tarnhorst said, "in dealings of this kind we are walking very close to the thin edge. We have to watch ourselves."

VI

Commodore Sir Harry Morgan was herded into a prison cell, given a shove across the smallish room, and allowed to hear the door slam behind him. By the time he regained his balance and turned to face the barred door again, it was locked. The bully-boys who had shoved him in turned away and walked down the corridor. Harry sat down on the floor and relaxed, leaning against the stone wall. There was no furniture of any kind in the cell, not even sanitary plumbing.

"What do I do for a drink of water?" he asked aloud of no one in particular.

"You wait till they bring you your drink," said a whispery voice a few feet from his head. Morgan realized that someone in the cell next to his was talking. "You get a quart a day—a halfa pint four times a day. Save your voice. Your throat

gets awful dry if you talk much."

"Yeah, it would," Morgan agreed in the same whisper. "What about sanitation?"

"That's your worry," said the voice. "Fella comes by every Wednesday and Saturday with a honey bucket. You clean out your own cell."

"I *thought* this place smelled of something other than attar of roses," Morgan observed. "My nose tells me this is Thursday."

There was a hoarse, humorless chuckle from the man in the next cell. "'At's right. The smell of the disinfectant is strongest now. Saturday mornin' it'll be different. You catch on fast, buddy."

"Oh, I'm a whiz," Morgan agreed. "But I thought the Welfare World took care of its poor, misled criminals better than this."

Again the chuckle. "You shoulda robbed a bank or killed somebody. Then theyda given you a nice rehabilitation sentence. Regular prison. Room of your own. Something real nice. Like a hotel. But this's different."

"Yeah," Morgan agreed. This was a political prison. This was the place where they put you when they didn't care what happened to you after the door was locked because there would be no going out.

Morgan knew where he was. It was a big, fortresslike building on top of one of the highest hills at the northern end of Manhattan Island—an old building that had once been a museum and was built like a medieval castle.

"What happens if you die in here?" he asked conversationally.

"Every Wednesday and Saturday," the voice repeated.

"Um," said Harry Morgan.

"'Cept once in a while," the voice whispered. "Like a couple days ago. When was it? Yeah. Monday that'd be. Guy they had in here for a week or so. Don't remember how long. Lose tracka time here. Yeah. Sure lose tracka time here."

There was a long pause, and Morgan, controlling the tenseness in his voice, said: "What about the guy Monday?"

"Oh. Him. Yeah, well, they took him out Monday."

Morgan waited again, got nothing further, and asked: "Dead?"

"Course he was dead. They was tryin' to get somethin' out of him. Somethin' about a cable. He jumped one of the guards, and they blackjacked him. Hit 'im too hard, I guess. Guard sure got hell for that, too. Me, I'm lucky. They don't ask me no questions."

"What are you in for?" Morgan asked.

"Don't know. They never told me. I don't ask for fear they'll remember. They might start askin' questions."

Morgan considered. This could be a plant, but he didn't think so. The voice was too authentic, and there would be no purpose in his information. That meant that Jack Latrobe really was dead. They had killed him. An ice cold hardness surged along his nerves.



The door at the far end of the corridor clanged, and a brace of heavy footsteps clomped along the floor. Two men came abreast of the steel-barred door and stopped.

One of them, a well-dressed, husky-looking man in his middle forties, said: "O.K., Morgan. How did you do it?"

"I put on blue lipstick and kissed my elbows—both of 'em. Going widdershins, of course."

"What are you talking about?"

"What are you talking about?"

"The guy in your hotel suite. You killed him. You cut off both feet, one hand, and his head. How'd you do it?"

Morgan looked at the man. "Police?"

"Nunna your business. Answer the question."

"I use a cobweb I happened to have with me. Who was he?"

The cop's face was whitish. "You chop a guy up like that and then don't know

who he is?"

"I can guess. I can guess that he was an agent for PMC 873 who was trespassing illegally. But I didn't kill him. I was in ... er ... custody when it happened."

"Not gonna talk, huh?" the cop said in a hard voice. "O.K., you've had your chance. We'll be back."

"I don't think I'll wait," said Morgan.

"You'll wait. We got you on a murder charge now. You'll wait. Wise guy." He turned and walked away. The other man followed like a trained hound.



After the door clanged, the man in the next cell whispered: "Well, you're for it. They're gonna ask you questions."

Morgan said one obscene word and stood up. It was time to leave.

He had been searched thoroughly. They had left him only his clothes, nothing else. They had checked to make sure that there were no microminiaturized circuits on him. He was clean.

So they thought.

Carefully, he caught a thread in the lapel of his jacket and pulled it free. Except for a certain springiness, it looked like an ordinary nylon thread. He looped it around one of the bars of his cell, high up. The ends he fastened to a couple of little decorative hooks in his belt—hooks covered with a shell of synthetic ruby.

Then he leaned back, putting his weight on the thread.

Slowly, like a knife moving through cold peanut butter, the thread sank into the steel bar, cutting through its one-inch thickness with increasing difficulty until it was half-way through. Then it seemed to slip the rest of the way through.

He repeated the procedure thrice more, making two cuts in each of two bars. Then he carefully removed the sections he had cut out. He put one of them on the floor of his cell and carried the other in his hand—three feet of one-inch steel makes a nice weapon if it becomes necessary.

Then he stepped through the hole he had made.

The man in the next cell widened his eyes as Harry Morgan walked by. But Morgan could tell that he saw nothing. He had only heard. His eyes had been removed long before. It was the condition of the man that convinced Morgan with utter finality that he had told the truth.

VII

Mr. Edway Tarnhorst felt fear, but no real surprise when the shadow in the window of his suite in the Grand Central Hotel materialized into a human being. But he couldn't help asking one question.

"How did you get there?" His voice was husky. "We're eighty floors above the street."

"Try climbing asteroids for a while," said Commodore Sir Harry Morgan. "You'll get used to it. That's why I knew Jack hadn't died 'accidentally'—he was murdered."

"You ... you're not carrying a gun," Tarnhorst said.

"Do I need one?"

Tarnhorst swallowed. "Yes. Fergus will be back in a moment."

"Who's Fergus?"

"He's the man who controls PMC 873."

Harry Morgan shoved his hand into his jacket pocket "Then I have a gun. You saw it, didn't you?"

"Yes. Yes ... I saw it when you came in."

"Good. Call him."

When Sam Fergus came in, he looked as though he had had about three or four too many slugs of whiskey. There was an odd fear on his face.

"Whats matter, Edway? I—" The fear increased when he saw Morgan. "Whadda you here for?"

"I'm here to make a speech Fergus. Sit down." When Fergus still stood, Morgan repeated what he had said with only a trace more emphasis. "Sit down."

Fergus sat. So did Tarnhorst.

"Both of you pay special attention," Morgan said, a piratical gleam in his eyes. "You killed a friend of mine. My best friend. But I'm not going to kill either of you. Yet. Just listen and listen carefully."

Even Tarnhorst looked frightened. "Don't move, Sam. He's got a gun. I saw it when he came in."

"What ... what do you want?" Fergus asked.

"I want to give you the information you want. The information that you killed Jack for." There was cold hatred in his voice. "I am going to tell you something that you have thought you wanted, but which you really will wish you had never heard. I'm going to tell you about that cable."

Neither Fergus nor Tarnhorst said a word.

"You want a cable. You've heard that we use a cable that has a tensile strength of better than a hundred million pounds per square inch, and you want to know how it's made. You tried to get the secret out of Jack because he was sent here as a commercial dealer. And he wouldn't talk, so one of your goons blackjacked him too hard and then you had to drop him off a bridge to make it look like an accident.

"Then you got your hands on me. You were going to wring it out of me. Well, there is no necessity of that." His grin became wolfish. "I'll give you everything." He paused. "If you want it."

Fergus found his voice. "I want it. I'll pay a million—"

"You'll pay nothing," Morgan said flatly. "You'll listen."

Fergus nodded wordlessly.

"The composition is simple. Basically, it is a two-phase material-like fiberglass. It consists of a strong, hard material imbedded in a matrix of softer material. The difference is that, in this case, the stronger fibers are borazon—boron nitride formed under tremendous pressure—while the softer matrix is composed of tungsten carbide. If the fibers are only a thousandth or two thousandths of an inch in diameter—the thickness of a human hair or less—then the cable from which they are made has tremendous strength and flexibility.

"Do you want the details of the process now?" His teeth were showing in his

wolfish grin.

Fergus swallowed. "Yes, of course. But ... but why do you—"

"Why do I give it to you? Because it will kill you. You have seen what the stuff will do. A strand a thousandth of an inch thick, encased in silon for lubrication purposes, got me out of that filthy hole you call a prison. You've heard about that?"

Fergus blinked. "You cut yourself out of there with the cable you're talking about?"

"Not with the cable. With a thin fiber. With one of the hairlike fibers that makes up the cable. Did you ever cut cheese with a wire? In effect, that wire is a knife—a knife that consists only of an edge.

"Or, another experiment you may have heard of. Take a block of ice. Connect a couple of ten-pound weights together with a few feet of piano wire and loop it across the ice block so that the weights hang free on either side, with the wire over the top of the block. The wire will cut right through the ice in a short time. The trouble is that the ice block remains whole—because the ice melts under the pressure of the wire and then flows around it and freezes again on the other side. But if you lubricate the wire with ordinary glycerine, it prevents the re-freezing and the ice block will be cut in two."

Tarnhorst nodded. "I remember. In school. They—" He let his voice trail off.



"Yeah. Exactly. It's a common experiment in basic science. Borazon fiber works the same way. Because it is so fine and has such tremendous tensile strength, it is possible to apply a pressure of hundreds of millions of pounds per square inch over a very small area. Under pressures like that, steel cuts easily. With silon covering to lubricate the cut, there's nothing to it. As you have heard from the guards in your little hell-hole.

"Hell-hole?" Tarnhorst's eyes narrowed and he flicked a quick glance at Fergus. Morgan realized that Tarnhorst had known nothing of the extent of Fergus' machinations.

"That lovely little political prison up in Fort Tryon Park that the World Welfare

State, with its usual solicitousness for the common man, keeps for its favorite guests," Morgan said. His wolfish smile returned. "I'd've cut the whole thing down if I'd had had the time. Not the stone—just the steel. In order to apply that kind of pressure you have to have the filament fastened to something considerably harder than the stuff you're trying to cut, you see. Don't try it with your fingers or you'll lose fingers."

Fergus' eyes widened again and he looked both ill and frightened. "The man we sent ... uh ... who was found in your room. You—" He stopped and seemed to have trouble swallowing.

"Me? *I* didn't do anything." Morgan did a good imitation of a shark trying to look innocent. "I'll admit that I looped a very fine filament of the stuff across the doorway a few times, so that if anyone tried to enter my room illegally I would be warned." He didn't bother to add that a pressure-sensitive device had released and reeled in the filament after it had done its work. "It doesn't need to be nearly as tough and heavy to cut through soft stuff like ... er ... say, a beefsteak, as it does to cut through steel. It's as fine as cobweb almost invisible. Won't the World Welfare State have fun when that stuff gets into the hands of its happy, crime-free populace?"

Edway Tarnhorst became suddenly alert. "What?"

"Yes. Think of the fun they'll have, all those lovely slobs who get their basic subsistence and their dignity and their honor as a free gift from the State. The kids, especially. They'll *love* it. It's so fine it can be hidden inside an ordinary thread—or woven into the hair—or..." He spread his hands. "A million places."

Fergus was gaping. Tarnhorst was concentrating on Morgan's words.

"And there's no possible way to leave fingerprints on anything that fine," Morgan continued. "You just hook it around a couple of nails or screws, across an open doorway or an alleyway—and wait."

"We wouldn't let it get into the people's hands," Tarnhorst said.

"You couldn't stop it," Morgan said flatly. "Manufacture the stuff and eventually one of the workers in the plant will figure out a way to steal some of it."

"Guards—" Fergus said faintly.

"*Pfui*. But even you had a perfect guard system, I think I can guarantee that some

of it would get into the hands of the—common people. Unless you want to cut off all imports from the Belt."

Tarnhorst's voice hardened. "You mean you'd deliberately—"

"I mean exactly what I said," Morgan cut in sharply. "Make of it what you want."

"I suppose you have that kind of trouble out in the Belt?" Tarnhorst asked.

"No. We don't have your kind of people out in the Belt, Mr. Tarnhorst. We have men who kill, yes. But we don't have the kind of juvenile and grown-up delinquents who will kill senselessly, just for kicks. That kind is too stupid to live long out there. We are in no danger from borazon-tungsten filaments. You are." He paused just for a moment, then said: "I'm ready to give you the details of the process now, Mr. Fergus."

"I don't think I—" Fergus began with a sickly sound in his voice. But Tarnhorst interrupted him.

"We don't want it, commodore. Forget it."

"Forget it?" Morgan's voice was as cutting as the filament he had been discussing. "Forget that Jack Latrobe was murdered?"

"We will pay indemnities, of course," Tarnhorst said, feeling that it was futile.

"*Fergus* will pay indemnities," Morgan said. "In money, the indemnities will come to the precise amount he was willing to pay for the cable secret. I suggest that your Government confiscate that amount from him and send it to us. That may be necessary in view of the second indemnity."

"Second indemnity?"

"Mr. Fergus' life."

Tarnhorst shook his head briskly. "No. We can't execute Fergus. Impossible."

"Of course not," Morgan said soothingly. "I don't suggest that you should. But I do suggest that Mr. Fergus be very careful about going through doorways—or any other kind of opening—from now on. I suggest that he refrain from passing between any pair of reasonably solid, well-anchored objects. I suggest that he stay away from bathtubs. I suggest that he be very careful about putting his legs under a table or desk. I suggest that he not look out of windows. I could make

several suggestions. And he shouldn't go around feeling in front of him, either. He might lose something."

"I understand," said Edway Tarnhorst.

So did Sam Fergus. Morgan could tell by his face.



When the indemnity check arrived on Ceres some time later, a short, terse note came with it.

"I regret to inform you that Mr. Samuel Fergus, evidently in a state of extreme nervous and psychic tension, took his own life by means of a gunshot wound in the head on the 21st of this month. The enclosed check will pay your indemnity in full. Tarnhorst."

Morgan smiled grimly. It was as he had expected. He had certainly never had any intention of going to all the trouble of killing Sam Fergus.



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