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TAKE A MATCH

Space was black; black an around in every direction. There was nothing to be seen; not a star.

It was not because there were no stars-

Actually the thought that there might be no stars, literally no stars, had chilled Per Hanson's vitals. It was the old nightmare that rested just barely subliminally beneath the skin of every deep-spacer's brain.

When you took the Jump through the tachyon-universe, how sure were you where you would emerge? The timing and quantity of the energy input might be as tightly controlled as you liked, and your Fusionist might be the best in space, but the uncertainty principle reigned supreme and there was always the chance, even the inevitability of a random miss.

And by way of tachyons, a paper-thin miss might be a thousand light-years.

What, then, if you landed nowhere; or at least so distant from anywhere that nothing could possibly ever, guide you to knowledge of your own position and nothing, therefore, could guide you back to anywhere?

Impossible, said the pundits. There was no place in the universe from which the quasars could not be seen, and from those alone you could position yourself. Besides, the chance that in the course of ordinary Jumps mere chance would take you outside the galaxy was only one in about ten million, and to the distance of, say, the Andromeda galaxy or Maffei 1, perhaps one in a quadrillion.

Forget it, said the pundits.

So when a ship comes out of its Jump, and returns from the weird paradoxes of the faster-than-light tachyons to the healthy we-know-it-all of an the tardyons from protons down to protons up, there must be stars to be seen. If they are not seen nevertheless, you are in a dust cloud; it is the only explanation. There are smoggy areas in thegalaxy, or in any spiral galaxy, as once there were onEarth, when it was the sole home of humanity, rather than the carefully preserved, weather-controlled, life-preserve museum-piece it now was.

Hanson was tall and gloomy; his skin was leathery; and what he didn't know about the

hyperships that ploughed the length and breadth of the galaxy and immediately neighboring regions-always barring the Fusionists' mysteries-was yet to be worked out. He was alone, now, in the Captain's Corner, as he liked to be. He had at hand all that was needed to be connected with any man or woman on board, and with the results of any device and instrument, and it pleased him to be the unseen presence.

– Though now nothing pleased him. He closed contact and said, “What else, Strauss?”

“We're in an open cluster,” said Strauss's voice. (Hanson did not turn on the visual attachment; it would have meant revealing his own face and he preferred his look of sick worry to be held private.)

“At least,” Strauss continued, “it seems to be an open cluster, from the level of radiation we can get in the far infrared and microwave regions. The trouble is we just can't pinpoint the positions well enough to locate ourselves. Not a hope.”

“Nothing in visible light?”

“Nothing at all; or in the near-infrared, either. The dust cloud is as thick as soup.”

“How big is it?”

“No way of telling.”

“Can you estimate the distance to the nearest edge?”

“Not even to an order of magnitude. It might be a light-week. It might be ten light-years. Absolutely no way of telling.”

“Have you talked to Viluekis?”

Strauss said briefly, “Yes!”

“What does he say?”

“Not much. He's sulking. He's taking it as a personal insult, of course.”

“Of course.” Hanson sighed noiselessly. Fusionists were as childish as children and because theirs was the romantic role in deep space, they were indulged. He said, “Isuppose you told him that this sort of thing is unpredictable and could happen at any time.”

“I did. And he said, as you can guess-'Not to Viluekis.' “

“Except that it did, of course. Well, I can't speak to him. Nothing I say will mean anything at all except that I'm trying to pull rank and then we'll get nothing further out of him. -He won't start the scoop?”

“He says he can't. He says it will be damaged.”

“How can you damage a magnetic field!”

Strauss grunted. “Don't say that to him. He'll tell you there's more to a fusion tube than a magnetic field and then say you're trying to downgrade him.”

“Yes, I know. -Well, look, put everyone and everything on the cloud. There must be some way to make some sort of guess as to the direction and distance of the nearest edge.” He broke connection.

Hanson frowned into the middle distance, then.

Nearest edge! It was doubtful if at the ship's speed (relative to the surrounding matter) they dared expend the energy required for radical alteration of course.

They had moved into the Jump at half-light speed relative to the galactic nucleus in the tardyon-universe, and they emerged from the Jump at (of course) the same speed. There always seemed an element of risk in that. After all, suppose you found yourself, on the return, in the near neighborhood of a star and heading toward it at half-light speed.

The theoreticians denied the possibility. To get dangerously close to a massive body by way of a Jump was not reasonably to be expected. So said the pundits. Gravitational forces were involved in the Jump and for the transition from tardyon to tachyon and back to tardyon those forces were repulsive in nature. In fact, it was the random effect of a net gravitational force that could never be worked out in complete detail that accounted for a good deal of the uncertainty in the Jump.

Besides, they would say, trust to the Fusionist's instinct. A good Fusionist never goes wrong.

Except that this Fusionist had Jumped them into a cloud.

– Oh, that! It happens all the time. It doesn't matter. Do you know how thin most clouds are. You won't even know you're in one.

(Not this cloud, O Pundit.)

– In fact, clouds are good for you. The scoops don't have to work so long or so hard to

keep fusion going and energy storing.

(Not this cloud, O Pundit.)

– Well, then, rely on the Fusionist to think of a way out.

(But if there was no way out?)

Hanson shied away from that last thought. He tried hard not to think it. -But how do you not think a thought that is the loudest thing in your head?

Henry Strauss, ship's astronomer, was himself in a mood of deep depression. If what had taken place were undiluted catastrophe, it might be accepted. No one on the hyperships could entirely close his eyes to the possibility of catastrophe. You were prepared for that, or you tried to be. -Though it was worse for the passengers, ofcourse.

But when the catastrophe involved something that you would give your eye-teeth to observe and study, and when you find that the professional find of a lifetime was precisely what was killing you-

He sighed heavily.

He was a stout man, with tinted contact lenses that gave a spurious brightness and color to eyes that would otherwise have precisely matched a colorless personality.

There was nothing the captain could do. He knew that. The captain might be autocrat of all the rest of the ship, but a Fusionist was a Jaw to himself, and always had been. Even to the passengers (he thought with some disgust) the Fusionist is the emperor of the spaceways and everyone beside dwindles to impotence.

It was a matter of supply and demand. The computers might calculate the exact quantity and timing of the energy input and the exact place and direction (if “direction “ had any meaning in the transition from tardyon to tachyon), but the margin of error was huge and only atalented Fusionist could lower it. What it was that gave a Fusionist his talent, no one knew-they were born, not made. But Fusionists knew they had the talent and there was never one that didn't trade on that.

Viluekis wasn't bad as Fusionists went-though they never went far. He and Strauss were at least on speaking terms, even though Viluekis had effortlessly collected the prettiest passenger on board after Strauss had seen her first. (That was somehow part of the Imperial rights of the Fusionists en route.)

Strauss contacted Anton Viluekis. It took time for it to go through and when it did,

Viluekis looked irritated in a rumpled, sad-eyed way.

“How's the tube?” asked Strauss gently. “I think I shut it down in time. I've gone over it and I don't see any damage. Now,” he looked down at himself, “I've got to clean up.”

“At least it isn't harmed.”

“But we can't use it “

“We might use it, Vil,” said Strauss in an insinuating voice. “We can't say what will happen out there. If the tube were damaged, it wouldn't matter what happened out there, but, as it is, if the cloud cleans up-”

“If-if-if-I'll tell you an 'if.' If you stupid astronomers had known this cloud was here, I might have avoided it.”

That was flatly irrelevant, and Strauss did not rise to the bait. He said, “It might clear up.”

“What's the analysis?”

“Not good, Vil. It's the thickest hydroxyl cloud that's ever been observed. There is nowhere in the galaxy, as far as I know, a place where hydroxyl has been concentrated so densely.”

“ And no hydrogen?”

“Some hydrogen, of course. About five per cent”

“Not enough,” said Viluekis curtly. “There's something else there besides hydroxyl. There's something that gave me more trouble than hydroxyl could. Did you locate it?”

“Oh, yes. Formaldehyde. There's more formaldehyde than hydrogen. Do you realize what it means, Vil? Some process has concentrated oxygen and carbon in space in unheard-of amounts; enough to use up the hydrogen over a volume of cubic light-years, perhaps. There isn't anything I know or can imagine which would account for such a thing.”

“What are you trying to say, Strauss? Are you telling me that this is the only cloud of this type in space and I am stupid enough to land in it?”

“I'm not saying that, Vil. I only say what you hear me say and you haven't heard me say that. But, Vil, to get out we're depending on you. I can't call for help because I can't aim a hyperbeam without knowing where we are: I can't find out where we are

because I can't pinpoint any stars-”

“And I can't use the fusion tube, so why am I the villain? You can't do your job, either, so why is the Fusionist always the villain.” Viluekis was simmering. “It's up to you, Strauss, up to you. Tell me where to cruise the ship to find hydrogen. Tell me where the edge of the cloud is. -Or to hell with the edge of the cloud; find me the edge of the hydroxyl-formaldehyde business.”

“I wish I could,” said Strauss, “but so far I can't detect anything but hydroxyl and formaldehyde as far as I can probe.”

“We can't fuse that stuff.”

“I know.”

“Well,” said Viluekis violently, “this is an example of why it's wrong for the government to try to legislate supersafety instead of leaving it to the judgment of the Fusionist on the spot. If we had the capacity for the Double-Jump, there'd be no trouble.”

Strauss knew perfectly well what Viluekis meant. There was always the tendency to save time by making two Jumps in rapid succession, but if one Jump involved certain unavoidable uncertainties, two in succession greatly multiplied those uncertainties, and even the best Fusionist couldn't do much. The multiplied error almost invariably greatly lengthened the total time of the trip.

It was a strict rule of hypernavigation that one full day of cruising between Jumps was necessary-three full days was preferable. That gave time enough to prepare the next Jump with all due caution. To avoid breaking thatrule, each Jump was made under conditions that left insufficient energy supply for a second. For at least some time, the scoops had to gather and compress hydrogen, fuse it, and store the energy, building up to Jump-ignition. And it usually took at least a day to store enough to allow a Jump.

Strauss said, “How far short in energy are you, Vil?”

“Not much. This much.” Viluekis held his thumb and forefinger apart by a quarter of an inch. “It's enough, though.”

“Too bad,” said Strauss flatly. The energy supply was recorded and could be inspected, but even so, Fusionists had been known to organize the records in such a way as to leave themselves some leeway for that second Jump.

“Are you sure?” he said. “Suppose you throw in the emergency generators, turn off all the lights-”

“And the air circulation and the appliances and the hydroponics apparatus. I know. I know. I figured that all in and we don't quite make it. -There's your stupid Double-Jump safety regulation.”

Strauss still managed to keep his temper. He knew-everyone knew-that it had been the Fusionist Brotherhood that had been the driving force behind that regulation. A Double-Jump, sometimes insisted on by the captain, much more often than not made the Fusionist look bad. -But then, there was at least one advantage. With an obligatory cruise between every Jump, there ought to be at least a week before the passengers grew restless and suspicious, and in that week something might happen. So far, it was not quite a day.

He said, “Are you sure you can't do something with your system; filter out some of the impurities?”

“Filter them out! They're not impurities; they're the whole thing. Hydrogen is the impurity here. Listen, I'll need half a billion degrees to fuse carbon and oxygen atoms; probably a full billion. It can't be done and I'm not going to try. If I try something and it doesn't work, it's my fault, and I won't stand for that. It's up to you to get me to the hydrogen and you do it. You just cruise this ship to the hydrogen. I don't care how long it takes.”

Strauss said, “We can't go faster than we're going now,considering the density of the medium, Vil. And at halflight speed we might have to cruise for two years-maybe twenty years”

“Well, you think of a way out. Or the captain.”

Strauss broke contact in despair. There was just no way of carrying on a rational conversation with a Fusionist. He'd heard the theory advanced (and perfectly seriously) that repeated Jumps affected the brain. In the Jump, every tardyon in ordinary matter had to be turned into an equivalent tachyon and then back again to the original tardyon. If the double conversion was imperfect in even the tiniest way, surely the effect would show up first in the brain, which was by far the most complex piece of matter ever to make the transition. Of course, no ill effects had ever been demonstrated experimentally, and no class of hypership officers seemed to deteriorate with time past what could be attributed to simple aging. But perhaps whatever it was in the Fusionists' brains that made them Fusionists and allowed them to go, by sheer intuition, beyond the best of computers might be particularly complex and therefore particularly vulnerable.

Nuts! There was nothing to it! Fusionists were merely spoiled!

He hesitated. Ought he to try to reach Cheryl? She could smooth matters if anyone could, and once old Vil-baby was properly dandled, he might think of a way to put the fusion tubes into operation-hydroxyl or not.

Did he really believe Viluekis could, under any circumstances? Or was he trying to avoid the thought of cruising for years? To be sure, hyperships were prepared for such an eventuality, in principle, but the eventuality had never come to pass and the crews-and still less the passengers-were surely not prepared for it.

But if he did talk to Cheryl, what could he say that wouldn't sound like an order for seduction? It was only one day so far and he was not yet ready to pimp for a Fusionist.

Wait! Awhile, anyway!

Viluekis frowned. He felt a little better having bathed and he was pleased that he had been firm with Strauss.Not a bad fellow, Strauss, but like all of them (“them,” the captain, the crew, the passengers, all the stupid non-Fusionists in the universe) he wanted to shed responsibility. Put it all on the Fusionist. It was an old, old song, and he was one Fusionist who wouldn't take it.

That talk about cruising for years was just a way of trying to frighten him. If they really put their minds to it, they could work out the limits of the cloud and somewhere there had to be a nearer edge. It was too much to ask that they had landed in the precise center. Of course, if they had landed near one edge and were heading for the other-

Viluekis rose and stretched. He was tall and his eyebrows hung over his eyes like canopies.

Suppose it did take years. No hypership had ever cruised for years. The longest cruise had been eighty-eight days and thirteen hours, when one of them had managed to find itself in an unfavorable position with respect to a diffuse star and had to recede at speeds that built up to over 0.9 light before it was reasonably able to Jump.

They had survived and that was a quarter-year cruise. Of course, twenty years

But that was impossible.

The signal light flashed three times before he was fully aware of it. If that was the captain coming to see him personally, he would leave at a rather more rapid rate than he had come.

“Anton!”

The voice was soft, urgent, and part of his annoyance seeped away. He allowed the door to recede into its socket and Cheryl came in. The door closed again behind her.

She was about twenty-five, with green eyes, a firm chin, dull red hair, and a magnificent figure that did not hide its light under a bushel.

She said, “ Anton. Is there something wrong?”

Viluekis was not caught so entirely by surprise as to admit any such thing. Even a Fusionist knew better than to reveal anything prematurely to a passenger. “Not at all. What makes you think so?”

“One of the other passengers says so. A man named Martand.”

“Martand? What does he know about it?” Then, suspiciously, “ And what are you doing listening to some fool passenger? What does he look like?”

Cheryl smiled wanly. “Just someone who struck up a conversation in the lounge. He must be nearly sixty years old, and quite harmless, though I imagine he would like not to be. But that's not the point. There are no stars in view. Anyone can see that, and Martand said it was significant.”

“Did he? We're just passing through a cloud. There are lots of clouds in the galaxy and hyperships pass through them all the time.”

“Yes, but Martand says you can usually see some stars even in a cloud.”

“What does he know about it?” Viluekis repeated. “Is he an old hand at deep space?”

“No-o,” admitted Cheryl. “Actually, it's his first trip, I think. But he seems to know a lot.”

“I'll bet. Listen, you go to him and tell him to shut up. He can be put in solitary for this. And don't you repeat stories like that, either.”

Cheryl put her head to one side. “Frankly, Anton, you sound as though there were trouble. This Martand-Louis Martand is his name-is an interesting fellow. He's a schoolteacher-eighth grade general science.”

“A grade-school teacher! Good Lord, Cheryl-”

“But you ought to listen to him. He says that teaching children is one of the few professions where you have to know a little bit about everything because kids ask questions and can spot phonies.”

“Well, then, maybe your specialty should be spotting phonies, too. Now, Cheryl, you go and tell him to shut up, or I will.”

“All right. But first-is it true that we're going through a hydroxyl cloud and the fusion tube is shut down?”

Viluekis's mouth opened, then shut again. It was quite a while before he said, “Who told you that?”

“Martand. I'll go now.”

“No,” said Viluekis sharply. “Wait awhile. How many others has Martand been telling all this?”

“Nobody. He said he doesn't want to spread panic. I was there when he wasthinking about it, I suppose, and I guess he couldn't resist saying something.”

“Does he know you know me?”

Cheryl's forehead furrowed slightly. “I think I mentioned something about it.”

Viluekis snorted, “Don't you suppose that this crazy old man you've picked up is bound to try to show you how great he is. It's me he's trying to impress through you.”

“Nothing of the sort,” said Cheryl. “In fact, he specifically said I wasn't to tell you anything.”

“Knowing, of course, that you'd come to me at once.”

“Why should he want me to do that?”

“To show me up. Do you know what it's like being a Fusionist? To have everyone resenting you, against you, because you're so needed, because you-”

Cheryl said, “But what's any of that got to do with it? If Martand's all wrong, how would that show you up? And if he's right-Is he right, Anton?”

“Well, exactly what did he say?”

“I'm not sure I can remember it all, of course,” Cheryl said thoughtfully. “It was after we came out of the Jump, actually quite a few hours after. By that time all anyone was talking about was that there were no stars in view. In the lounge everyone was saying there ought to be another Jump soon because what was the good of deep-space travel

without a view. Of course, we knew we had to cruise at least a day. Then Martand came in, saw me, and came over to speak to me. -I think he rather likes me."

"I think I rather don't like him," said Viluekis grimly. "Go on."

"I said to him that it was pretty dreary without a view and he said it would stay that way for a while, and he sounded worried. Naturally I asked why he said such a thing and he said it was because the fusion tube had been turned off."

"Who told him that?" demanded Viluekis.

He said there was a low hum that you could hear in one of the men's rooms that you couldn't hear anymore. And he said there was a place in the closet of the game room where the chess sets were kept where the wall felt warm because of the fusion tube and that place was not warm now."

"Is that all the evidence he has?"

– Cheryl ignored that and went on, "He said there were no stars visible because we were in a dust cloud and the fusion tubes must have stopped because there was no hydrogen to speak of in it. He said there probably wouldn't be enough energy to spark another Jump and that if we looked for hydrogen we might have to cruise years to get out of the cloud."

Viluekis's frown became ferocious. "He's panic-mongering. Do you know what that-"

"He's not. He told me not to tell anyone because he said it would create panic and that besides it wouldn't happen. He only told me because he had just figured it out and was all excited about it and had to talk to someone, but he said there was an easy way out and that the Fusionist would know what to do so that there was no need to worry at all. -But you're the Fusionist, so it seemed to me I had to ask whether he was really right about the cloud and whether you had really taken care of it."

Viluekis said, "This grade-school teacher of yours knows nothing about anything. Just stay away from him. -Uh, did he say what his so-called easy way out was?"

"No. Should I have asked him?"

"No! Why should you have asked him? What would he know about it? But then again- All right, ask him. I'm curious what the idiot has in mind. Ask him."

Cheryl nodded. "I can do that. But are we in trouble?" Viluekis said shortly. "Suppose you leave that to me.

We're not in trouble till I say we're in trouble.”

He looked for a long time at the closed door after she had left, both angry and uneasy. What was this Louis Martand-this grade-school teacher-doing with his lucky guesses?

If it finally came about that an extended cruise was necessary, the passengers would have to have it broken tothem carefully, or none of them would survive. With Martand shouting it to all who would listen-

Almost savagely Viluekis clicked shut the combination that would bring him the captain.

Martand was slim and of neat appearance. His lips seemed forever on the verge of a smile, though his face and bearing were marked by a polite gravity; an almost expectant gravity, as though he was forever waiting for the person with him to say something truly important.

Cheryl said to him, “I spoke to Mr. Viluekis. -He's the Fusionist, you know. I told him what you said.”

Martand looked shocked and shook his head. “I'm afraid you shouldn't have done that!”

“He did seem displeased.”

“Of course. Fusionists are very special people and they don't like to have outsiders-”

“I could see that. But he insisted there was nothing to worry about.”

“Of course not,” said Martand, taking her hand and patting it in a consoling gesture, but then continuing to hold it. “I told you there was an easy way out. He's probably setting it up now. Still, I suppose it could be awhile before he thinks of it.”

“Thinks of what?” Then, warmly, “Why shouldn't he think of it, if you have?”

“But he's a specialist, you see, my dear young lady. Specialists think in their speciality and have a hard time getting out of it. As for myself, I don't dare fall into rots. When I set up a class demonstration I've got to improvise most of the time. I have never yet been at a school where proton micropiles have been available, and I’ve had to work up a kerosene thermoelectric generator when we're off on field trips.”

“What's kerosene?” asked Cheryl.

Martand laughed. He seemed delighted. “You see? People forget. Kerosene is a kind of

flammable liquid. A still-more-primitive source of energy that I have many times had to use was a wood fire which you start by friction. Did you ever come across one of those? You take a match-”

Cheryl was looking blank and Martand went on indulgently, “Well, it doesn't matter. I'm just trying to get across the notion that your Fusionist will have to think of something more primitive than fusion and that will take him a while. As for me, I'm used to working with primitive methods. -For instance, do you know what's out there?”

He gestured at the viewing port, which was utterly featureless; so featureless that the lounge was virtually depopulated for lack of a view.

“A cloud; a dust cloud.”

“Ah, but what kind? The one thing that's always to be found everywhere is hydrogen. It's the original stuff of the universe and hyperships depend on it. No ship can carry enough fuel to make repeated Jumps or to accelerate to near-light-speed and back repeatedly. We have to scoop the fuel out of space.”

“You know, I've always wondered about that. I thought outer space was empty!”

“Nearly empty, my dear, and 'nearly' is as good as a feast. When you travel at a hundred thousand miles a second, you can scoop up and compress quite a bit of hydrogen, even when there's only a few atoms per cubic centimeter. And small amounts of hydrogen, fusing steadily, provide all the energy we need. In clouds the hydrogen is usually even thicker, but impurities may cause trouble, as in this one.”

“How can you tell this one has impurities?”

“Why else would Mr. Viluekis have shut down the fusion tube. Next to hydrogen, the most common elements in the universe are helium, oxygen, and carbon. If the fusion pumps have stopped, that means there's a shortage of fuel, which is hydrogen, and a presence of something that will damage the complex fusion system. This can't be helium, which is harmless. It is possibly hydroxyl groups, an oxygen-hydrogen combination. Do you understand?”

“I think so,” said Cheryl. “I had general science in college, and some of it is coming back. The dust is really hydroxyl groups attached to solid dust grains.”

“Or actually free in the gaseous state, too. Even hydroxyl is not too dangerous to the fusion system, in moderation, but carbon compounds are. Formaldehyde is most -likely and I should imagine with a ratio of about one of those to four hydroxyls. Do you see now?”

“No, I don't,” said Cheryl flatly.

“Such compounds won't fuse. If you heat them to a few hundred million degrees, they break down into single atoms and the concentration of oxygen and carbon will simply damage the system. But why not take them in at ordinary temperatures. Hydroxyl will combine with formaldehyde, after compression, in a chemical reaction that will cause no harm to the system. At least, I'm sure a good Fusionist could modify the system to handle a chemical reaction at room temperature. The energy of the reaction can be stored and, after a while, there will be enough to make a Jump possible.”

Cheryl said, “I don't see that at all. Chemical reactions produce hardly any energy, compared to fusion.”

“You're quite right, dear. But we don't need much. The previous Jump has left us with insufficient energy for an immediate second Jump-that's regulations. But I'll bet your friend, the Fusionist, saw to it that as little energy as possible was lacking. Fusionists usually do that. The little extra required to reach ignition can be collected from ordinary chemical reactions. Then, once a Jump takes us out of the cloud, cruising for a week or so will refill our energy tanks and we can continue without harm. Of course-” Martand raised his eyebrows and shrugged.

“Yes?”

“Of course,” said Martand, “if for any reason Mr. Viluekis should delay, there may be trouble. Every day we spend before Jumping uses up energy in the ordinary life of the ship, and after a while chemical reactions won't supply the energy required to reach Jump-ignition. I hope he doesn't wait long.”

“Well, why don't you tell him? Now.”

Martand shook his head. “Tell a Fusionist? I couldn't do that, dear.”

“Then I will.”

“Oh, no. He's sure to think of it himself. In fact, I'll make a bet with you, my dear. You tell him exactly what I said and say that I told you he had already thought of it himself and that the fusion tube was in operation. And, of course, if I win-”

Martand smiled.

Cheryl smiled, too. “I'll see,” she said.

Martand looked after her thoughtfully as she hastened away, his thoughts not entirely on Viluekis's possible reaction.

He was not surprised when a ship's guard appeared from almost nowhere and said, “Please come with me, Mr. Martand.”

Martand said quietly. “Thank you for letting me finish. I was afraid you wouldn't.”

Something more than six hours passed before Martand was allowed to see the captain. His imprisonment (which was what he considered it) was one of isolation, but was not onerous; and the captain, when he did see him, looked tired and not particularly hostile.

Hanson said, “It was reported to me that you were spreading rumors designed to create panic among the passengers. That is a serious charge.”

“I spoke to one passenger only, sir; and for a purpose.”

“So we realize. We put you under surveillance at once

and I have a report, a rather full one, of the conversation you had with Miss Cheryl Winter. It was the second conversation on the subject.”

“Yes, sir.”

“Apparently you intended the meat of the conversation to be passed on to Mr. Viluekis.”

“Yes, sir.”

“You did not consider going to Mr. Viluekis personally?”

“I doubt that he would have listened, sir.”

“Or to me.”

“You might have listened, but how would you pass on the information to Mr. Viluekis? You might then have had to use Miss Winter yourself. Fusionists have their peculiarities.”

The captain nodded abstractedly. “What was it you expected to happen when Miss Winter passed on the information to Mr. Viluekis?”

“My hope, sir,” said Martand, “was that he would be less defensive with Miss Winter than with anyone else; that he would feel less threatened. I was hoping that he would laugh and say the idea was a simple one that had occurred to him long before, and

that, indeed, the scoops were already working, with the intent of promoting the chemical reaction. Then, when he got rid of Miss Winter, and I imagine he would do that quickly, he would start the scoops and report his action to you, sir, omitting any reference to myself or Miss Winter."

"You did not think he might dismiss the whole notion as unworkable?"

"There was that chance, but it didn't happen."

"How do you know?"

"Because half an hour after I was placed in detention, sir, the lights in the room in which I was kept dimmed perceptibly and did not brighten again. I assumed that energy expenditure in the ship was being cut to the bone, and assumed further that Viluekis was throwing everything into the pot so that the chemical reaction would supply enough for ignition."

The captain frowned. "What made you so sure you could manipulate Mr. Viluekis? Surely you have never dealt with Fusionists, have you?"

"Ah, but I teach the eighth-grade, captain. I have dealt with other children."

For a moment the captain's expression remained wooden. And then slowly it relaxed into a smile. "I like you, Mr. Martand," he said, "but it won't help you. Your expectations did come to pass; as nearly as I can tell, exactly as you had hoped. But do you understand what followed?"

"I will, if you tell me."

"Mr. Viluekis had to evaluate your suggestion and decide, at once, whether it was practical. He had to make a number of careful adjustments to the system to allow chemical reactions without knocking out the possibility of future fusion. He had to determine the maximum safe rate of reaction; the amount of stored energy to save; the point at which ignition might safely be attempted; the kind and nature of the Jump. It all had to be done quickly and noone else but a Fusionist could have done it. In fact, not every Fusionist could have done it; Mr. Viluekis is exceptional even for a Fusionist. Do you see?"

"Quite well." The captain looked at the timepiece on the wall and activated his viewport. It was black, as it had been now for the better part of two days. "Mr. Viluekis has informed me of the time at which he will attempt Jump-ignition. He thinks it will work and I am confident in his judgment."

"If he misses," said Martand somberly, "we may find ourselves in the same position as

before, but stripped of energy.”

“I realize that,” said Hanson, “and since you might feel a certain responsibility over having placed the idea in the Fusionist's mind, I thought you might want to wait through the few moments of suspense ahead of us.”

Both men were silent now, watching the screen, while first seconds, then minutes, moved past. Hanson had not mentioned the exact deadline and Martand had no way of telling how imminent it was or whether it had passed. He could only shift his glance, occasionally and momentarily, to the captain's face, which maintained a studied expressionlessness.

And then came that queer internal wrench that disappeared almost at once, like a tic in the abdominal wall. They had Jumped.

“Stars!” said Hanson in a whisper of deep satisfaction. The viewport had burst into a riot of them, and at that moment Martand could recall no sweeter sight in all his life.

“And on the second,” said Hanson. “ A beautiful job. We're energy-stripped now, but we'll be full again in anywhere from one to three weeks, and during that time the passengers will have their view.”

Martand felt too weak with relief to speak.

The captain turned to him. “Now, Mr. Martand. Your idea had merit. One could argue that it saved the ship and everyone on it. One could also argue that Mr. Viluekis was sure to think of it himself soon enough. But there will be no argument about it at all, for under no conditions can your part in this be known. Mr. Viluekis did the joband it was a great one of pure virtuosity even after we take into account the fact that you may have sparked it. He will be commended for it and receive great honors. You will receive nothing.”

Martand was silent for a moment. Then he said, “I understand. A Fusionist is indispensable and I am of no account. If Mr. Viluekis's pride is hurt in the slightest, he may become useless to you, and you can't afford to lose him. For myself-well, be it as you wish. Good day, Captain.”

“Not quite,” said the captain. “We can't trust you.”

“I won't say anything.”

“You may not intend to, but things happen. We can't take the chance. For the remainder of the flight you will be under house arrest.”

Martand frowned. “For what? I saved you and your damned ship - and your Fusionist.”

“For exactly that. For saving it. That's the way it works out.”

“Where's the justice?”

Slowly the captain shook his head. “It's a rare commodity, I admit, and sometimes too expensive to afford. You can't even go back to your room. You will be seeing no one in what remains of the trip.”

Martand rubbed the side of his chin with one finger. “Surely you don't mean that literally, Captain.”

“I'm afraid I do.”

“But there is another who might talk-accidentally and without meaning to. You had better place Miss Winter under house arrest, too.”

“And double the injustice?”

“Misery loves company,” said Martand.

And the captain smiled. “Perhaps you're right,” he said.