

NO MOVING PARTS
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They sat and Candle pumped Hansen of everything he knew about the entire situation. An hour later, Hansen felt almost as if he had been had. "Is that all?" he asked, wearily.

"I got the facts," Candle said. "Now let's go throw those experts out." It wasn't quite that simple. Neither Bullard nor Quemos had any intention of simply clearing out. "Who the hell you think you are," Bullard said, "to come over here and order us off? We didn't even ask for help. And, God knows, you couldn't supply it anyway." Bullard, with evident distaste, ran his eyes up and down Candle's clothing.

Dr. Quemos had some ideas, too. "Letter of authority or no letter of authority," Quemos said, pointing a manicured forefinger at the paper in Candle's hand, "you'll ruin everything! You have no idea what you're up against. We've spent weeks working this thing out—"

Candle grinned. "What've you worked out?"

"Why – why we know that this is a metal double enveloping worm gear."

"Wrong," Candle said. "It's a single enveloping worm gear. It's made of steel with an aluminum alloy wheel gear and the two parts have corroded and stuck. The whole mechanism was originally designed for submarines."

Quemos started to say something, then turned and looked at Bullard for reassurance. "He's crazy," Bullard said, "he's making it up as he goes along. How could he possibly know what he's talking about? Why, there haven't been any submarines for centuries."

"I'm tired of playing games," Candle said, no longer grinning. "The boy and I have work to do. You two are in the way. You'll only take up time if I have to work with you and show you what to do. I want you and your ship out of here in half an hour."

"Who's going to make us?" Bullard asked with great originality.

"I am."

Everybody turned around to see who else had entered the conversation. It was Hansen. "I'm going to give you fifteen minutes, not thirty," Hansen said. "Then I'm going to turn the grid power on at full intensity. You can either use it to take off, or sit around and roast alive inside your ship." Candle turned and looked at Hansen with new respect. "Okay ... Let's go back to your place. I've still got some things to figure out."

Quemos was on the verge of hysteria. "You're bluffing! You wouldn't dare. I'll report this!"

Fifteen minutes later, the ship headed for space.

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Back in Hansen's room, the two men ate a quick lunch, then sat at the table and talked about Candle's plans for opening the reluctant door. "The way I figure it," Candle said, "I think that we can handle the whole thing by radio. Which reminds me, one of these days I'm going to build a telescreen that will transmit and receive through pseudo-met. Not too difficult really if you approach the problem--"

"I better get Fromer for you," Hansen said hurriedly.

"Fromer here," said the bass voice.

"This is Candle. Let me talk to one of your so-called engineering officers."

"Who the hell--"

"Shut up and go get 'em," Candle growled back. "And one more yelp out of you and you'll stay in that ship till you rot."

There was a pause, then Fromer again, a meek Fromer. "My chief engineering officer is with me."

"Okay. Now get this. Come to think of it, you'd better record it. Number one: By now you know which component is a worm gear. You will notice, I'm quite certain, that it engages a large notched wheel. The reason that the door will not move is because at the point where the two gears meet, some

of the metal has oxidized. For possible use in future emergencies, I offer this explanation. The entire mechanism is subject to periodic vacuum, when the airlock door is operated. In between times, the mechanism is in the ship's atmosphere. A condition of lower oxygen content thus obtains around the sealed off area, and such an area is anodic – in other words, corrodible with respect to the surrounding areas in which oxygen has free access. Now, since this door has opened and closed successfully for about five hundred years, it appears that there's a special reason why it suddenly refuses to function. At a guess, you would experience this condition of intense corrosion only when the aluminum in the wheel gear is exposed to something like sodium hydroxide, and only at the point where it controls the worm gear. Now, has this ship landed recently within such an atmosphere?"

"Three weeks ago on Ghortin IV," said the weak voice of the engineer. "We landed to get some pictures of the cloud formations for souvenirs. We dropped on the edge of a large body of water because the view was better--"

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Candle shook his head sadly and said, "You could have avoided trouble by coming in over the land instead of the water. The heat from the ship boiled the water which undoubtedly contained sodium carbonate and calcium hydroxide; presto, and the air was filled with clouds of sodium hydroxide.

"I suggest that you steer away from all such wicked places in the future. Of course, if you'd learn how to mine ore, smelt metal, machine components –"

"First they'd have to discover fire," Hansen said out of the corner of his mouth.

"You're catching on, son," Candle said, out of the corner of his mouth.