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*** START OF THE PROJECT GUTENBERG EBOOK THE SENTIMENTALISTS ***



The Sentimentalists

By MURRAY LEINSTER

Illustrated by HUNTER

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***You do not always have to go looking for
a guardian angel. He may be looking for
you—but perhaps for somebody else's benefit!***

Rhadampsicus and Nodalictha were on their honeymoon, and consequently they were sentimental. To be sure, it would not have been easy for humans to imagine sentiment as existing between them. Humans would hardly associate tenderness with glances cast from sets of sixteen eyes mounted on jointed eye stalks, nor link langorous thrills with a coy mingling of positronic repulsion blasts—even when the emission of positron blasts from beneath one's mantle was one's normal personal mode of locomotion. And when two creatures like Rhadampsicus and Nodalictha stood on what might be roughly described as their heads and twined their eye stalks together, so that they gazed fondly at each other with all sixteen eyes at once, humans would not have thought of it as the equivalent of a loving kiss. Humans would have screamed and run—if they were not paralyzed by the mere sight of such individuals.

Nevertheless, they were a very happy pair and they were very sentimental, and it was probably a good thing, considered from all angles. They were still newlyweds on their wedding tour—they had been married only seventy-five years before—when they passed by the sun that humans call Cetus Gamma.

Rhadampsicus noted its peculiarity. He was anxious, of course, for their honeymoon to be memorable in every possible way. So he pointed it out to Nodalictha and explained what was shortly to be expected. She listened with a bride's rapt admiration of her new husband's wisdom. Perceiving his scientific interest, she suggested shyly that they stop and watch.

Rhadampsicus scanned the area. There were planets—inner ones, and then a group of gas giants, and then a very cosy series of three outer planets with surface temperatures ranging from three to seven degrees Kelvin.

They changed course and landed on the ninth planet out, where the landscape was delightful. Rhadampsicus unlimbered his traveling kit and prepared a bower. Nitrogen snow rose and swirled and consolidated as he deftly shifted force-pencils. When the tumult subsided, there was a snug if primitive cottage for the two of them to dwell in while they waited for Cetus Gamma to accomplish its purpose.

Nodalictha cried out softly when she entered the bower. She was fascinated by its completeness. There was even running liquid hydrogen from a little rill nearby. And over the doorway, as an artistic and appropriate touch, Rhadampsicus had put his own and Nodalictha's initials, pricked out in amber chlorine crystals and intertwined within the symbol which to them meant a heart. Nodalictha embraced him fondly for his thoughtfulness. Of course, no human would have recognized it as an embrace, but that did not matter.

Happily, then, they settled down to observe the phenomenon that Cetus Gamma would presently display. They scanned the gas giant planets together, and then the inner ones.

On the second planet out from the sun, they perceived small biped animals busily engaged in works of primitive civilization. Nodalictha was charmed. She asked eager questions, and Rhadampsicus searched his memory and told her that the creatures were not well known, but had been observed before. Limited in every way by their physical constitution, they had actually achieved a form of space travel by means of crude vehicles. He believed, he said, that the name they called themselves was "men."

The sun rose slowly in the east, and Lon Simpson swore patiently as he tried for the eighteenth time to get the generator back again in a fashion to make it work. His tractor waited in the nearby field. The fields waited. Over in Cetopolis, the scales and storsheds waited, and somewhere there was doubtless a cargo ship waiting for a spacegram to summon it to Cetus Gamma Two for a load of *thanas* leaves. And of course people everywhere waited for *thanas* leaves.

A milligram a day kept old age away—which was not an advertising slogan but sound, practical geriatric science. But *thanas* leaves would only grow on Cetus Gamma Two, and the law said that all habitable planets had to be open for colonization and land could not be withheld from market.

There was too much population back on Earth, anyhow. Therefore the Cetus Gamma Trading Company couldn't make a planetwide plantation and keep *thanas* as a monopoly, but could only run its own plantation for research and instruction purposes for new colonists. Colonists had to be admitted to the planet, and they had to be sold land. But there are ways of getting around every law.

Lon Simpson swore. The Diesel of his tractor ran a generator. The generator ran the motors in the tractor's catawheels. But this was the sixth time in a month that the generator had broken down, and generators do not break down.

Lon put it together for the eighteenth time this breakdown, and it still wouldn't work. There was nothing detectably wrong with it, but he couldn't make it work.

Seething, he walked back to his neat, prefabricated house. He picked up the beamphone. Even Cathy's voice at the exchange in Cetopolis could not soothe him, he was so furious.

"Cathy, give me Carson—and don't listen!" he said tensely.

He heard clickings on the two-way beam.

"My generator's gone," he said sourly when Carson answered. "I've repaired it twice this week. It looks like it was built to stop working! What is this all about, anyhow?"

The representative of the Cetus Gamma Trading Company sounded bored.

"You want a new generator sent out?" he asked without interest. "Your crop credit's still all right—if the fields are in good shape."

"I want machinery that works!" Lon Simpson snapped. "I want machinery that doesn't have to be bought four times over a growing season! And I want it at a decent price!"

"Look, those generators come out from Earth. There's freight on them. There's freight on everything that comes out from Earth. You people come to a developed planet, you buy your land, your machinery, your house, and you get instruction in agriculture. Do you want the company to tuck you in bed at night besides? Do you want a new generator or not?"

"How much?" demanded Lon. When Carson told him, he hit the ceiling. "It's robbery! What'll I have left for my crop if I buy that?"

Carson's voice was still bored. "If you buy it and your crop's up to standard, you'll owe the crop plus three hundred credits. But we'll stake you to next growing season."

"And if I don't?" demanded Lon. "Suppose I don't give you all my work for nothing and wind up in debt?"

"By contract," Carson told him, "we've got the right to finish cultivating your crop and charge you for the work because we've advanced you credit on it. Then we attach your land and house for the balance due. And you get no more credit at the Company stores. And passage off this planet has to be paid for in cash." He yawned. "Don't answer now," he said without interest. "Call me back after you calm down. You'd only have to apologize."

Lon Simpson heard the click as he began to describe, heatedly, what was in his mind. He said it anyhow. Then Cathy's voice came from the exchange. She sounded shocked but sympathetic.

"Lon! Please!"

He swallowed a particularly inventive description of the manners, morals and ancestry of all the directors and employees of the Cetus Gamma Trading Company. Then he said, still fuming, "I told you not to listen!"

His wrongs overcame him again. "It's robbery! It's peonage! They've got every credit I had! They've got three-quarters of the value of my crop charged up for replacements of the lousy machinery they sold me—and now I'll end the growing season in debt! How am I going to ask you to marry me?"

"Not over a beamphone, I hope," said Cathy.

He was abruptly sunk in gloom.

"That was a slip," he admitted. "I was going to wait until I got paid for my crop. It looked good. Now—"

"Wait a minute, Lon," Cathy said. There was silence. She gave somebody else a connection.

The phone-beams from the colony farms all went to Cetopolis and Cathy was one of the two operators there. If or when the colony got prosperous enough, there would be a regular intercommunication system. So it was said. Meanwhile, Lon had a suspicion that there might be another reason for the antiquated central station.

Cathy said brightly, "Yes, Lon?"

"I'll come in to town tonight," he said darkly. "Date?"

"Y-yes," stammered Cathy. "Oh, yes!"

He hung up and went back out to the field and the tractor. He began to think sourly of a large number of things all at once. There was a law to encourage people to leave Earth for colonies on suitable planets. There was even governmental help for people who didn't have funds of their own. But if a man wanted to make something of himself, he preferred to use his own money and pick his own planet and choose his own way of life.

Lon Simpson had bought four hectares of land on Cetus Gamma Two. He'd paid his passage out. He'd given five hundred credits a month for an instruction course on the Company's plantation,

during which time he'd labored faithfully to grow, harvest, and cure *thamar* leaves for the Company's profit. Then he'd bought farm machinery from the Company—and a house—and very painstakingly had set out to be a colonist on his own.

Just about that time, Cathy had arrived on a Company ship and taken up her duties as beamphone operator at Cetopolis. It was a new colony, with not more than five thousand humans on the whole planet, all of them concentrated near the one small town with its plank sidewalks and prefabricated buildings. Lon Simpson met Cathy, and his labors on his *thamar* farm acquired new energy and purpose.

But he was up against a shrewd organization. His inordinately expensive farm machinery broke down. He repaired it. After a time it could not be repaired any longer and he had to buy more. Before the *thamar* plants were half grown, he owed more than half his prospective crop for machinery replacements.

Now he could see the method perfectly. The Company imported all machinery. It made that machinery in its own factories, machinery that was designed to break down. So this year—even if nothing else happened—Lon would wind up owing more for machinery replacements than the crop would bring.

It was not likely that nothing else would happen. Next season he would start off in debt, instead of all clear, and if the same thing happened he would owe all his crop and be six thousand credits behind. By harvest after next, his farm and house could be foreclosed for debt and he could either try to work for other colonists—who were in the process of going through the same wringer themselves—or hire out as a farmhand on the Company's plantation. He would never be able to save space-fare away from the planet. He would be very much worse off than the assisted emigrants to other planets, who had not invested all they owned in land and machinery and agricultural instructions.

And there was Cathy. She owed for her passage. It would be years before she could pay that back, if ever. She couldn't live in the farmhand barracks. They might as well give up thinking about each other.

It was a system. Beautifully legal, absolutely airtight. Not a thing wrong with it. The Company had a monopoly on *thamar*, despite the law. It had all the cultivated land on Cetus Gamma Two under its control, and its labor problem was solved. Its laborers first paid something like sixteen thousand credits a head for the privilege of trying to farm independently for a year or two, and then became farmhands for the Company at a bare subsistence wage.

Lon Simpson was in the grip of that system. He had taken the generator apart and put it back together eighteen times. There was nothing visibly wrong with it. It had been designed to break down with nothing visibly wrong with it. If he couldn't repair it, though, he was out fifteen hundred credits, his investment was wiped out, and all his hopes were gone.

He took the generator apart for the nineteenth time. He wondered grimly how the Company's designers made generators so cleverly that they would stop working so that even the trouble with them couldn't be figured out. It was a very ingenious system.

Out on the ninth planet, Rhadampsicus explained the situation to his bride as they waited for the interesting astronomical phenomenon. They were quite cosy, waiting. Their bower was simple, of course. Frozen nitrogen walls, and windows of the faint bluish tint of oxygen ice. Rhadampsicus had grown some cyanogen flower-crystals to make the place look homelike, and there was now a lovely reflection-pool in which liquid hydrogen reflected the stars. Cetus Gamma, the local sun, seemed hardly more than a very bright and very near star—it was four light-hours away—and it glimmered over the landscape and made everything quite charming.

Nodalictha, naturally, would not enter the minds of the male bipeds on the inner planet. Modesty forbade such a thing—as, of course, the conscientiousness of a brand-new husband limited Rhadampsicus to the thoughts of the males among the bipeds. But Nodalictha was distressed when Rhadampsicus told her of what was occurring among the bipeds. He guided her thoughts to Cathy, in the beamphone exchange at Cetopolis.

"But it is terrible!" said Nodalictha in distress when she had absorbed Cathy's maiden meditations. She did not actually speak in words and soundwaves. There is no air worth mentioning at seven degrees Kelvin. It's all frozen. A little helium hangs around, perhaps. Nothing else. The word for communication is not exactly the word for speech, but it will do. Nodalictha said, "They love each other! In a cute way, they are like—like we were, Rhadampsicus!"

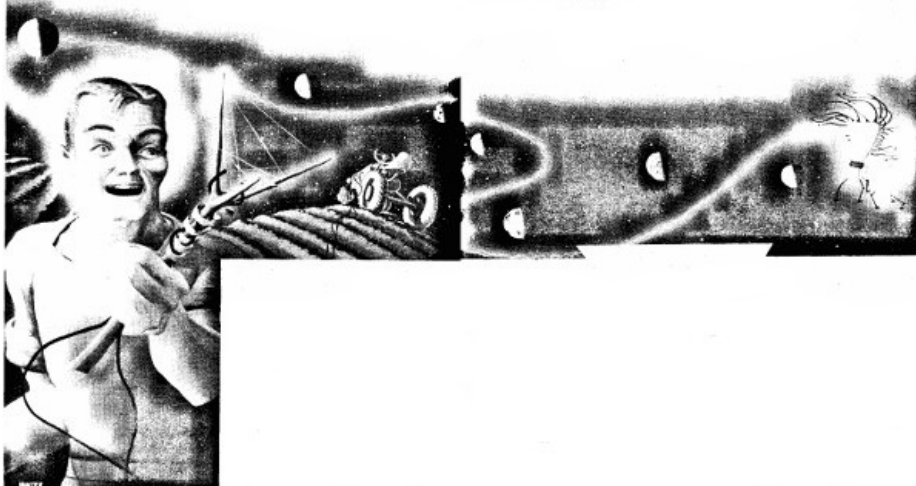
Rhadampsicus played a positron-beam on her in feigned indignation. If that beam had hit a human, the human would have curled up in a scorched, smoking heap. But Nodalictha bridled.

"Rhadampsicus!" she protested fondly. "Stop tickling me! But can't you do something for them? They are so cute!"

And Rhadampsicus gallantly sent his thoughts back to the second planet, where a biped grimly

labored over a primitive device.

Lon Simpson, staring at the disassembled generator, suddenly blinked. The grimness went out of his expression. He stared. An idea had occurred to him. He went over it in his mind. He blew out his breath in a long whistle. Then, very painstakingly, he did four or five things that completely ruined the generator for the extremely modest trade-in allowance he could have gotten for it at the Company store.



He worked absorbedly for perhaps twenty minutes, his eyes intent. At the end of that time he had threads of unwound secondary wire stretched back and forth across a forked stick of *dhil* weed, and two small pieces of sheet iron twisted together in an extremely improbable manner. He connected the ends of the secondary wire to contacts in his tractor. He climbed into the tractor seat. He threw over the drive control.

The tractor lurched into motion. The Diesel wasn't running. But the tractor rolled comfortably as Lon drove it, the individual motors in the separate catawheels drawing power from a mere maze of wires across a forked stick—plus two pieces of sheet iron. There was plenty of power.

Lon drove the tractor the rest of the morning and all afternoon with a very peculiar expression on his face. He understood what he had done. Now that he had done it, it seemed the most obvious of expedients. He felt inclined to be incredulous that nobody had ever happened to think of this particular device before. But they very plainly hadn't. It was a source of all the electric power anybody could possibly want. The voltage would depend on the number of turns of copper wire around a suitably forked stick. The amperage would be whatever that voltage could put through whatever was hooked to it.

He no longer needed a new generator for his tractor. He had one.

He didn't even need a Diesel.

With adequate power—he'd been having to nurse the Diesel along, too, lately—Lon Simpson ran his tractor late into the twilight. He cultivated all the ground that urgently needed cultivation, and at least one field he hadn't hoped to get to before next week. But his expression was amazed. It is a very peculiar sensation to discover that one is a genius.

That night, in Cetopolis, he told Cathy all about it. It was a very warm night—an unusually warm night. They walked along the plank sidewalks of the little frontier town—as a new colony, Cetus Gamma Two was a frontier—and Lon talked extravagantly.

He had meant to explain painfully to Cathy that there was no use in their being romantic about each other. He'd expected to have to tell her bitterly that he was doomed to spend the rest of his life adding to the profits of the Cetus Gamma Trading Company, with all the laws of the human race holding him in peonage. He'd thought of some very elegant descriptions of the sort of people who'd worked out the system in force on Cetus Gamma Two.

But he didn't. As they strolled under the shiver trees that lined the small town's highways, and smelled the *chanel* bushes beyond the town's limits, and listened to the thin violinlike strains of what should have been night birds—they weren't; the singers were furry instead of feathered, and they slept in burrows during the day—as they walked with linked fingers in the warm and starlit night, Lon told Cathy about his invention.

He explained in detail just why wires wound in just that fashion, and combined with bits of sheet iron twisted in just those shapes, would produce power for free and forever. He explained how it had to be so. He marveled that nobody had ever thought of it before. He explained it so that Cathy could almost understand it.

"It's wonderful!" she said wistfully. "They'll run spaceships on your invention, won't they, Lon? And cities? And everything! I guess you'll be very rich for inventing it!"

He stopped short and stared at her. He hadn't thought that far ahead. Then he said blankly:

"But I'll have to get back to Earth to patent it! And I haven't got the money to pay one fare, let alone two!"

"Two?" asked Cathy hopefully. "Why two?"

"You're going to marry me, aren't you?" he demanded. "I sort of hope that was all settled."

Cathy stamped her foot.

"Hadn't you heard," she asked indignantly, "that such things aren't taken for granted? Especially when two people are walking in the starlight and are supposed to be thrilled? It isn't settled—not until after you've kissed me, anyhow!"

He remedied his error.

Out on the ninth planet, very far away, Nodalictha blushed slightly. As a bride, she was in that deliciously embarrassing state of becoming accustomed to discussions which would previously have been unconventional.

"They are so quaint!" Then she hesitated and said awkwardly, "The idea of putting their—their lips together as a sign of affection—"

Rhadampsicus was amused, as a bridegroom may be by the delightful innocences of a new wife. He evinced his amusement in a manner no human being could conceivably have recognized as the tender laugh it was.

"Little goose!" he said fondly. Of course, instead of a fowl, he thought of a creature that had thirty-four legs and scales instead of feathers and was otherwise thoroughly ungooselike. "Little goose, they do that because they can't do this!"

And he twined his eye stalks sentimentally about hers.

Days passed on Cetus Gamma Two. Lon Simpson cultivated his *thanas* fields. But he began to worry. His new power source was more than a repair for a broken-down tractor. It was valuable. It was riches! He had in it one of those basic, overwhelmingly important discoveries by which human beings have climbed up from the status of intelligent Earthbound creatures to galactic colonists—And a lot of good it had done them!

It was a basic principle for power supply that would relieve mankind permanently of the burden of fuels. The number of planets available for colonization would be multiplied. The cost of every object made by human beings would be reduced by the previous cost of power. The price of haulage from one planet to another would be reduced to a fraction. Every member of the human race would become richer as a result of the gadget now attached to Lon Simpson's tractor. He was entitled to royalties on the wealth he was to distribute. But....

He was a *thanas* farmer on Cetus Gamma Two. His crop was mortgaged. He could not possibly hope to raise enough money to get back to Earth to arrange for the marketing of his invention. Especially, he could not conceivably raise money enough to take Cathy with him. He had riches, but they weren't available. And something else might happen to ruin him at any time.

Something else did. The freezer element of his deep-freeze locker broke down. He didn't notice it. He had a small kitchen locker in which food for week-to-week use was stored. He didn't know anything about the deep-freeze unit that held a whole growing season's supply of food. The food in it—all imported from Earth and very expensive—thawed, fermented, spoiled, developed evil smelling gases, and waited for an appropriate moment to reveal itself as a catastrophe.

There were other things to worry about at the time. A glacier up at Cetus Gamma Two's polar region began to retreat, instead of growing as was normal for the season. There was a remarkable solar prominence of three days' duration swinging around the equator of the local sun. There was a meeting of directors of the Cetus Gamma Trading Company, at which one of the directors pointed out that the normal curve of increase for profits was beginning to flatten out, and something had to be done to improve the financial position of the company. Ugly sun-spots appeared on the northern hemisphere of Cetus Gamma. If there had been any astronomers on the job, there would have been as much excitement as a four alarm fire. But there were no astronomers.

The greatest agitation on the second planet of Cetus Gamma Two was felt by Lon Simpson. Cathy had made friends with a married woman colonist who would chaperon her on a visit to Lon's farm, and was coming out to visit and see the place that was to be the scene of the ineffable,

unparalleled happiness she and Lon would know after they were married.

She came, she saw, she was captivated. Lon blissfully opened the door of the house she was to share. He had spent the better part of two days cleaning up so it would be fit for her to look at. Cathy entered. There was a dull, booming noise, a hissing, and a bubbling, and then a rank stench swept through the house and strangled them.

The boom, of course, was the bursting open of the deep-freeze locker from the pressure of accumulated gases within it. The smell was that of the deep-freeze contents, ten days thawed out without Lon knowing it. There are very few smells much worse than frozen fish gone very, very bad in a hot climate. If there are worse smells, they come from once-frozen eggs bursting from their shells when pressure outside them is relieved. In this case, trimmings were added by fermenting strawberries, moldy meat and badly decayed vegetables, all triumphantly making themselves known at the same instant.

Cathy gasped and choked. Lon got her out of doors, gasping himself. It was not difficult to deduce what had happened.

He opened the house windows from the outside, so the smell could go away. But he knew despair.

"I—can't show you the house, Cathy," he said numbly. "My locker went bad and all the food followed suit."

"Lon!" wailed Cathy. "It's terrible! How will you eat?"

Lon began to realize that the matter was more serious than the loss of an opportunity for a sentimental inspection of the house. He had dreamed splendidly, of late. He didn't quite know how he was going to manage it, but since his tractor was working magnificently he had come to picture himself and Cathy in the rôle of successful colonists, zestfully growing *thanas* leaves for the increasing multitudes of people who needed a milligram a day.

He'd reverted to the pictured dreams in the Cetus Gamma Trading Company's advertisements. He'd daydreamed of himself and Cathy as growing with the colony, thriving as it throve, and ultimately becoming moderately rich—in children and grandchildren, anyhow—with life stretching out before them in a sort of rosy glow. He'd negligently assumed that somehow they would also be rich from the royalties on his invention. But now he came down to reality.

His house was uninhabitable for the time being. He could continue to cultivate his fields, but he wouldn't be able to eat. The local plant-life was not suitable for human digestion. He had to live on food imported from Earth. Now he had to buy a new stock from the Company, and it would bankrupt him.

With an invention worth more—probably—than the Cetus Gamma Company itself, if he could realize on it, he still was broke. His crop was mortgaged. If Carson learned about his substitute for a generator, the Company would immediately clamp down to get it away from him.

He took Cathy back to Cetopolis. He feverishly appealed to other colonists. He couldn't tell them about his generator substitute. If they knew about it, in time Carson would know. If they used it, Carson would eventually get hold of a specimen, to send back to Earth for pirating by the Cetus Gamma Trading Company. All Lon could do was try desperately to arrange to borrow food to live on until his crop came in, though even then he wouldn't be in any admirable situation.

He couldn't borrow food in quantity. Other colonists had troubles, too. They'd give him a meal, yes, but they couldn't refill his freezer without emptying their own. Which would compel them to buy more. Which would be charged against their crops. Which would simply hasten the day when they would become day-laborers on the Company's *thanas* farm.

Lon had about two days' food in the kitchen locker. He determined to stretch it to four. Then he'd have to buy more. With each meal, then, his hopes of freedom and prosperity—and Cathy—grew less.

Of course, he could starve....

Rhadampicus was enormously and pleasantly interested in what went on in Cetus Gamma's photosphere. From the ninth planet, he scanned the prominences with enthusiasm, making notes. Nodalicta tried to take a proper wifely interest in her husband's hobby, but she could not keep it up indefinitely. She busied herself with her housekeeping. She fashioned a carpet of tufted methane fibres and put up curtains at the windows. She enlarged the garden Rhadampicus had made, adding borders of crystallized ammonia and a sort of walkway with a hedge of monoclinic sulphur which glittered beautifully in the starlight. She knew that this was only a temporary dwelling, but she wanted Rhadampicus to realize that she could make any place a comfortable home.

He remained absorbed in the phenomena of the local sun. One great prominence, after five days of spectacular existence, divided into two which naturally moved apart and stationed themselves at opposite sides of the sun's equator. They continued to rotate with the sun itself, giving very much the effect of an incipient pinwheel. Two other minor prominences came into being midway

between them. Rhadampsicus watched in fascination.

Nodalictha came and reposed beside him on a gentle slope of volcanic slag. She waited for him to notice her. She would not let herself be sensitive about his interest in his hobby, of course, but she could not really find it absorbing for herself. A trifle wistfully, she sent her thoughts to the female biped on the second planet.

After a while she said in distress, "Rhadampsicus! Oh, they are so unhappy!"

Rhadampsicus gallantly turned his attention from the happenings on the sun.

"What's that, darling?"

"Look!" said Nodalictha plaintively. "They are so much in love, Rhadampsicus! And they can't marry because he hasn't anything edible to share with her!"

Rhadampsicus scanned. He was an ardent and sentimental husband. If his new little wife was distressed about anything at all, Rhadampsicus was splendidly ready to do something about it.

Lon Simpson looked at his kitchen locker. The big deep-freezer was repaired now. Once a season, a truck came out from Cetopolis and filled it. The food was costly. A season's supply was kept in deep-freeze. Once in one or two weeks, one refilled the kitchen locker. It was best to leave the deep-freeze locker closed as much as possible. But now the big deep-freeze was empty. He'd cleaned out the ghastly mess in it, and he had it running again, but he had nothing to put in it. To have it refilled would put him hopelessly at the Company's mercy, but there was nothing else to do.

Bitterly, he called the Trading Company office, and Carson answered.

"This is Simpson," Lon told him. "How much—"

"The price for a generator," said Carson, bored, "is the same as before. Do you want it sent out?"

"No! My food locker broke down. My food store spoiled. I need more."

"I'll figure it," replied Carson over the beamphone. He didn't seem interested. After a moment, he said indifferently, "Fifteen hundred credits for standard rations to crop time. Then you'll need more."

"It's robbery!" raged Lon. "I can't expect more than four thousand credits for my crop! You've got three thousand charged against me now!"

Carson yawned. "True. A new generator, fifteen hundred; new food supplies fifteen hundred. If your crop turns out all right, you'll start the new season with two thousand credits charged up as a loan against your land."

Lon Simpson strangled on his fury. "You'll take all my leaves and I'll still owe you! Then credit for seed and food and—if I need to buy more machinery, you'll own my farm *and* crop next crop time! Even if my crop is good! Your damned Company will own my farm!"

"That's your lookout," Carson said without emotion. "Being a *thanas* farmer was your idea, not mine. Shall I send out the food?"

Lon Simpson bellowed into the beamphone. He heard clicking, then Cathy's voice. It was at once reproachful and sympathetic.

"Lon! Please!"

But Lon couldn't talk to her. He panted at her, and hung up. It is essential to a young man in love that he shine, somehow, in the eyes of the girl he cares for. Lon was not shining. He was appearing as the Galaxy's prize sap. He'd invested a sizable fortune in his farm. He was a good farmer—hard-working and skilled. In the matter of repairing generators, he'd proved to be a genius. But he was at the mercy of the Cetus Gamma Company's representative. He was already in debt. If he wanted to go on eating, he'd go deeper. If he were careful and industrious and thrifty, the Trading Company would take his crop and farm in six more months and then give him a job at day-labor wages.

He went grimly to the kitchen of his home. He looked at the trivial amount of food remaining. He was hungry. He could eat it all right now.

If he did—

Then, staring at the food in the kitchen locker, he blinked. An idea had occurred to him. He was blankly astonished at it. He went over and over it in his mind. His expression became dubiously skeptical, and then skeptically amazed. But his eyes remained intent as he thought.

Presently, looking very skeptical indeed, he went out of the house and unwound more copper wire from the remnant of the disassembled generator. He came back to the kitchen. He took an emptied tin can and cut it in a distinctly peculiar manner. The cuts he made were asymmetrical. When he had finished, he looked at it doubtfully.

A long time later he had made a new gadget. It consisted of two open coils, one quite large and

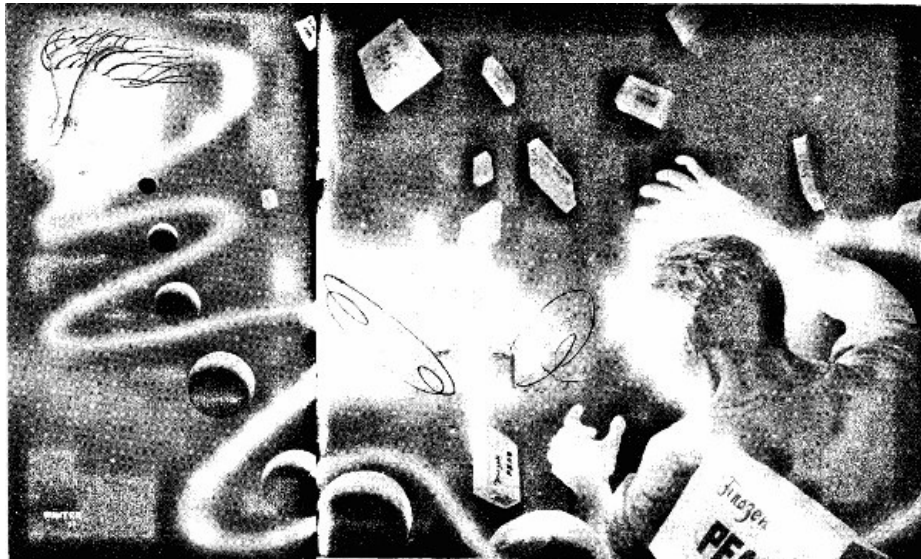
one quite small. Their resemblance to each other was plain, but they did not at all resemble any other coils that had been made for any other purpose whatsoever. If they looked like anything, it was the "mobiles" that some sculptors once insisted were art.

Lon stared at his work with an air of helplessness. Then he went out again. He returned with the forked stick that had proved to be a generator. He connected the wires from that improbable contrivance to the coils of the new and still more unlikely device. The eccentrically cut tin can was in the middle, between them.

There was a humming sound. Lon went out a third time and came back with a mass of shrubbery. He packed it in the large coil.

He muttered to himself, "I'm out of my head! I'm crazy!"

But then he went to the kitchen locker. He put a small packet of frozen green peas in the tin can between the two coils.



The humming sound increased. After a moment there was another parcel of green peas—not frozen—in the small coil.

Lon took it out. The device hummed more loudly again. Immediately there was another parcel of green peas in the small coil. He took them out.

When he had six parcels of green peas instead of one, the mass of foliage in the large coil collapsed abruptly. Lon disconnected the wires and removed the debris. The native foliage looked shrunken, somehow, dried-out. Lon tossed it through the window.

He put a parcel of unfrozen green peas on to cook and sat down and held his head in his hands. He knew what had happened. He knew how.

The local flora on Cetus Gamma Two naturally contained the same chemical elements as the green peas imported from Earth. Those elements were combined in chemical compounds similar, if not identical to, those of the Earth vegetation. The new gadget simply converted the compounds in the large coil to match those in the sample—in the tin can—and assembled them in the small coil according to the physical structure of the sample. In this case, as green peas.

The device would take any approximate compound from the large coil and reassemble it—suitably modified as per sample—in the small coil. It would work not only for green peas, but for roots, barks, herbs, berries, blossoms and flowers.

It would even work for *thunar* leaves.

When that last fact occurred to him, Lon Simpson went quietly loony, trying to figure out how he had come to think of such a thing. He was definitely crooked, because he picked up the beamphone and told Cathy all about it. And he was not loony because he told Cathy, but because he forgot his earlier suspicions of why there was a central station for beamphones in Cetopolis, instead of a modern direct-communication system.

In fact, he forgot the system in operation on Cetus Gamma Two—the Company's system. It had been designed to put colonists through the wringer and deposit them at its own farm to be day-laborers forever with due regard to human law. But it was a very efficient system.

It took care of strokes of genius, too.

That night, Carson, listening boredly to the record of all the conversations over the beamphone during the day, heard what Lon had told Cathy. He didn't believe it, of course.

But he made a memo to look into it.

Rhadampsicus stretched himself. Out on the ninth planet, the weather was slightly warmer—almost six degrees Kelvin, two hundred and sixty-odd degrees centigrade below zero—and he was inclined to be lazy. But he was very handsome, in Nodalictha's eyes. He was seventy or more feet from his foremost eye stalk to the tip of his least crimson appendage, and he fluoresced beautifully in the starlight. He was a very gallant young bridegroom.

When he saw Nodalictha looking at him admiringly, he said with his customary tenderness:

"It was fatiguing to make him go through it, darling, but since you wished it, it is done. He now has food to share with the female."

"And you're handsome, too, Rhadampsicus!" Nodalictha said irrelevantly.

She felt as brides sometimes do on their honeymoons. She was quite sure that she had not only the bravest and handsomest of husbands, but the most thoughtful and considerate.

Presently, with their eye stalks intertwined, he asked softly:

"Are you weary of this place, darling? I would like to watch the rest of this rather rare phenomenon, but if you're not interested, we can go on. And truly I won't mind."

"Of course we'll stay!" protested Nodalictha. "I want to do anything you want to. I'm perfectly happy just being with you."

And, unquestionably, she was.

Carson, though bored, was a bit upset by the recorded conversation he'd listened to. Lon Simpson had been almost incoherent, but he obviously meant Cathy to take him seriously. And there were some things to back it up.

He'd reported his generator hopelessly useless—and hadn't bought a new one. He'd reported all his food spoiled—and hadn't bought more. Carson thought it over carefully. The crop inspection helicopter reported Simpson's fields in much better shape than average, so his tractor was obviously working.

Carson asked casual, deadpan questions of other colonists who came into the Company store. Most of them were harried, sullen and bitter. They were unanimously aware of the wringer they were being put through. They knew what the Company was doing to them and they hated Carson because he represented it. But they did answer Carson's casual questions about Lon Simpson.

Yes, he'd tried to borrow food from them. No, they couldn't lend it to him. Yes, he was still eating. In fact he was offering to swap food. He was short on fruit and long on frozen green peas. Then he was long on fruit and frozen green peas and short on frozen sweet corn and strawberries. No, he didn't want to trade on a big scale. One package of frozen strawberries was all he wanted. He gave six packages of frozen peas for it. He gave six packages of frozen strawberries for one package of frozen sweet corn. He'd swapped a dozen parcels of sweet corn for one of fillet of flounder, two dozen fillet of flounder for cigarettes, and fifty cartons of cigarettes for a frozen roast of beef.

It didn't make sense unless the conversation on the beamphone was right. If what Lon had told Cathy was true, he'd have his frozen food locker filled up again by now. He had some sort of device which converted the indigestible local flora and fauna into digestible Earth products. To suspect such a thing was preposterous, but Carson suspected everyone and everything.

As representative of the Company, Carson naturally did its dirty work. New colonists bought farms from the central office on Earth and happily took ship to Cetus Gamma Two. Then Carson put them through their instruction course, outfitted them to try farming on their own, and saw to it that they went bankrupt and either starved or took jobs as farmhands for the Company, at wages assuring that they could never take ship away again.

It was a nasty job and Carson did it very well, because he loved it.

While he still debated Lon's insane boasts to Cathy over the beamphone system, he prepared to take over the farm of another colonist. That man had been deeper in debt than Lon, and he'd been less skilled at repairs, so it was time to gather him in. Carson called him to Cetopolis to tell him that the Company regretfully could not extend further credit, would have to take back his farm, house, and remaining food stores, and finish the cultivation of his *thamar* leaf crop to repay itself for the trouble.

The colonist, however, said briefly: "Go to hell."

He started to leave Carson's air-cooled office. Carson said mildly:

"You're broke. You'll want a job when you haven't got a farm. You can't afford to tell me to go to hell."

"You can't take my farm unless my fields are neglected," the colonist said comfortably. "They aren't. And my *thamar* leaf crop is going to be a bumper one. I'll pay off all I owe—and we colonists are planning to start a trading company of our own, to bring in good machinery and deal fairly."

Carson smiled coldly.

"You forget something," he said. "As representative of the Trading Company, I can call on you to pay up all your debts at once, if I have reason to think you intend to try to evade payment. I do think so. I call on you for immediate payment in full. Pay up, please!"

This was an especially neat paragraph in the fine print of the colonists' contract with the Company. Any time a colonist got obstinate he could be required to pay all he owed, on the dot. And if he had enough to pay, he wouldn't owe. So the Trading Company could ruin anybody.

But this colonist merely grinned.

"By law," he observed, "you have to accept *thamar* leaves as legal tender, at five credits a kilo. Send out a truck for your payment. I've got six tons in my barn, all ready to turn in."

He made a most indecorous gesture and walked out. A moment later, he put his head back in.

"I forgot," he commented politely. "You said I couldn't afford to tell you to go to hell. With six tons of *thamar* leaves on hand, I'm telling you to—"

He added several other things, compared to which telling Carson to go to hell was the height of courtesy. He went away.

Carson went a little pale. It occurred to him that this colonist was a close neighbor of Lon Simpson. Maybe Lon had gotten tired of converting *dhil* weed and shiver leaves into green peas and asparagus, and had gotten to work turning out *thamar*.

Carson went to Lon's farm. It was a very bad road, and any four-wheeled vehicle would have shaken itself to pieces on the way. The gyrocar merely jolted Carson severely. The jolting kept him from noticing how hot the weather was. It was really extraordinarily hot, and Carson suffered more because he spent most of his time in an air-conditioned office. But for the same reason he did not suspect anything abnormal.

When he reached Lon's farm, he noticed that the *thamar* leaves were growing admirably. For a moment, sweating as he was, he was reminded of tobacco plants growing on Maryland hillsides. The heat and the bluish-green color of the plants seemed very familiar. But then a cateagle ran hastily up a tree, out on a branch, and launched its crimson furry self into midair. That broke the spell of supposedly familiar things.

Carson turned his gyrocar in at Lon Simpson's house. There were half a dozen other colonists around. Two of them drove up with farm trucks loaded with mixed foliage. They had pulled up, cut off and dragged down just about anything that grew, and loaded their truck with it. Two other colonists were loading another cart with *thamar* leaves, neatly bundled and ready for the warehouse.

They regarded Carson with pleased eyes. Carson spoke severely to Cathy.

"What are you doing here? You're supposed to be on duty at the beamphone exchange! You can be discharged—"

Lon Simpson said negligently, "I'm paying her passage. By law, anybody can pay the passage of any woman if she intends to marry him, and then her contract with the company is ended. They had rules like that in ancient days—only they used to pay in tobacco instead of *thamar* leaves."

Carson gulped. "But how will you pay her fare?" He asked sternly. "You're in debt to the Company yourself."

Lon Simpson jerked his thumb toward his barn. Carson turned and looked. It was a nice-looking barn. The aluminum siding set it off against a backing of shiver trees, *dhil* and giant *sketit* growth. Carson's eyes bugged out. Lon's barn was packed so tightly with *thamar* leaves that they bulged out the doors.

"I need to turn some of that stuff in, anyhow," said Lon pleasantly. "I haven't got storage space for it. By law you have to buy it at five credits a kilo. I wish you'd send out and get some. I'd like to build up some credit. Think I'll take a trip back to Earth."

At this moment, there was a very peculiar wave of heat. It was not violent, but the temperature went up about four degrees—suddenly, as if somebody had turned on a room heater.

But still nobody looked up at the sun.

Rattled, Carson demanded furiously if Lon had converted other local foliage into *thamar* leaves, as he'd made his green peas and the other stuff he'd told Cathy about on the beamphone. Lon tensed, and observed to the other colonists that evidently all beamphones played into recorders. The atmosphere became unfriendly. Carson got more rattled still. He began to wave his arms and

sputter.

Lon Simpson treated him gently. He took him into the house to watch the converter at work. One of the colonists kept its large coil suitably stuffed with assorted foliage. There was a "hand" of cured, early—best quality—*thanar* leaves in an erratically cut tin can. Duplicates of that hand of best quality *thanar* were appearing in the small coil as fast as they were removed, and fresh foliage was being heaped into the large coil.

"We expect," said Lon happily, "to have a bumper crop of the best grade of *thanar* this year. It looks like every colonist on the planet will be able to pay off his debt to the Company and have credit left over. We'll be sending a committee back to Earth to collect our credits there and organize an independent cooperative trading company that will bring out decent machinery and be a competitive buying agency for *thanar*. I'm sure the Company will be glad to see us all so prosperous."

It was stifling hot by now, but nobody noticed. The colonists were much too interested in seeing Carson go visibly to pieces before them. He was one of those people who seem to have been developed by an all-wise Providence expressly to be underlings for certain types of large corporations. Their single purpose in life is to impress their superiors in the corporation that hires them. But now Carson saw his usefulness ended. Through his failure, in some fashion, the Company's monopoly on *thanar* leaves and its beautiful system of recruiting labor were ruined. He would be discharged and probably blacklisted.

If he had looked up toward the western sky, squinted a little, and gazed directly at the local sun, he would have seen that his private troubles were of no importance at all. But he didn't. He went staggering to his gyrocar and headed back for Cetopolis.

It was a tiny town, with plank streets, a beamphone exchange, and its warehouses over by the spaceport. It was merely a crude and rather ugly little settlement on a newly colonized planet. But it had been the center of an admirable system by which the Cetus Gamma Trading Company got magnificently rich and dispensed *thanar* leaf (a milligram a day kept old age away) throughout all humanity at the very top price the traffic would bear. And the system was shaky now and Carson would be blamed for it.

Behind him, the colonists rejoiced as hugely as Carson suffered. But none of them got the proper perspective, because none of them looked at the sun.

About four o'clock in the afternoon, it got suddenly hotter again, as abruptly as before. It stayed hotter. Something made Cathy look up. There was a thin cloud overhead, just the right thickness to act something like a piece of smoked glass. She could look directly at the sun through it, examine the disk with her naked eye.

But it wasn't a disk any longer. Cetus Gamma was a bulging, irregularly shaped thing twice its normal size. As she looked, it grew larger still.

Out on the ninth planet, Rhadampsicus was absorbed in his contemplation of Cetus Gamma. With nothing to interfere with his scanning, he could follow the developments perfectly. There had been first one gigantic prominence, then two, which separated to opposite sides of its equator. Then two other prominences began to grow between them.

For two full days, the new prominences grew, and then split, so that the sun came to have the appearance of a ball of fire surrounded by a ring of blue-white incandescence.

Then came instability. Flame geysers spouting hundreds of thousands of miles into emptiness ceased to keep their formation. They turned north and south from the equatorial line. The outline of the sun became irregular. It ceased to be round in profile, and even the appearance of a ring around it vanished. It looked—though this would never have occurred to Rhadampsicus—very much like a fiercely glowing gigantic potato. Its evolution of heat went up incredibly. It much more than doubled its rate of radiation.

Rhadampsicus watched each detail of the flare-up with fascinated attention. Nodalictha dutifully watched with him. But she could not maintain her interest in so purely scientific a phenomenon.

When a thin streamer of pure blue-white jettied upward from the sun's pole, attaining a speed of six hundred and ninety-two miles per second, Rhadampsicus turned to her with enthusiasm.

"Exactly in the pattern of a flare-up according to Dhokis' theory!" he exclaimed. "I have always thought he was more nearly right than the modernists. Radiation pressure can build up in a closed system such as the interior of a sun. It can equal the gravitational constant. And obviously it would break loose at the pole."

Then he saw that Nodalictha's manner was one of distress. He was instantly concerned.

"What's the matter, darling?" he asked anxiously. "I didn't mean to neglect you, my precious one!"

Nodalictha did something that would have scared a human being out of a year's growth, but was actually the equivalent of an unhappy, stifled sob.

"I am a beast!" said Rhadampsicus penitently. "I've kept you here, in boredom, while I enjoyed myself watching this sun do tricks. I'm truly sorry, Nodalictha. We will go on at once. I shouldn't have asked you to—"

But Nodalictha said unhappily, "It isn't you, Rhadampsicus. It's me! While you've been watching the star, I've amused myself watching those quaint little creatures on the second planet. I've thought of them as—well, as pets. I've grown fond of them. It was absurd of me—"

"Oh, but it is wonderful of you," said Rhadampsicus tenderly. "I love you all the more for it, my darling. But why are you unhappy about them? I made sure they had food and energy."

"They're going to be burned up!" wailed Nodalictha, "and they're so cute!"

Rhadampsicus blinked his eyes—all sixteen of them. Then he said self-accusingly, "My dear, I should have thought of that. Of course this is only a flare-up, darling...." Then he made an impatient gesture. "I see! You would rather think of them as happy, in their little way, than as burned to tiny crisps."

He considered, scanning the second planet with the normal anxiety of a bridegroom to do anything that would remove a cloud from his bride's lovely sixteen eyes.

Night fell on Cetopolis, and with it came some slight alleviation of the dreadfulness that had begun that afternoon. The air was furnacelike in heat and dryness. There was the smell of smoke everywhere. The stars were faint and red and ominous, seen through the smoke that overlay everything. So far, to be sure, breathing was possible. It was even possible to be comfortable in an air-conditioned room. But this was only the beginning.

Lon and Cathy sat together on the porch of his house, after sundown. The other colonists had gone away to their own homes. When the crack of doom has visibly begun, men do queer things. In Cetopolis some undoubtedly got drunk, or tried to. But there were farmers who would spend this last night looking at their drooping crops, trying to persuade themselves that if Cetus Gamma only went back to normal before sunrise, the crops might yet be saved. But none of them expected it.

Off to the south there was an angry reddish glare in the sky. That was vegetation on the desert there, burning. It grew thick as jungle in the rainy season, and dried out to pure dessication in dry weather. It had caught fire of itself from the sun's glare in late afternoon. Great clouds of acrid smoke rose from it to the stars.

Beyond the horizon to the west there was destruction.

Lon and Cathy sat close together. She hadn't even asked to be taken back to Cetopolis, as convention would have required. The sun was growing hotter still while it sank below the horizon. It was expanding in fits and starts as new writhing spouts of stuff from its interior burst the bonds of gravity. Blazing magma flung upward in an unthinkable eruption. The sun had been three times normal size when it set.

Lon was no astronomer, but plainly the end of life on the inner planets of Cetus Gamma was at hand.

Cetus Gamma might, he considered, be in the process of becoming a nova. Certainly beyond the horizon there was even more terrible heat than had struck the human colony before sundown. Even if the sun did not explode, even if it was only as fiercely blazing as at its setting, they would die within hours after sunrise. If it increased in brightness, by daybreak its first rays would be death itself. When dawn came, the very first direct beams would set the shiver trees alight on the hilltops, and as it rose the fires would go down into the valleys. This house would smoke and writhe and melt; the air would become flame, and the planet's surface would glow red-hot as it turned into the sunshine.

"It's going to be—all right, Lon," Cathy said unconvincedly. "It's just something happening that'll be over in a little while. But—in case it isn't—we might as well be together. Don't you think so?"

Lon put his arm comfortingly around her. He felt a very strong impulse to lie. He could pretend to vast wisdom and tell her the sun's behavior was this or that, and never lasted more than a few hours, but she'd know he lied. They could spend their last hours trying to deceive each other out of pure affection. But they'd know it was deceit.

"D-don't you think so?" insisted Cathy faintly.

He said gently, "No, Cathy, and neither do you. This is the finish. It would've been a lot nicer to go on living, the two of us. We'd have had long, long years to be together. We'd have had kids, and they'd have grown up, and we'd have had—a lot of things. But now I'm afraid we won't."

He tried to smile at her, but it hurt. He thought passionately that he would gladly submit himself to be burned in the slowest and most excruciating manner if only she could be saved from it. But he couldn't do anything.

Cathy gulped. "I-I'm afraid so, too, Lon," she said in a small voice. "But it's nice we met each other, anyhow. Now we know we love each other. I don't like the idea of dying, but I'm glad we knew we loved each other before it happened."

Lon's hands clenched fiercely. Then the rage went away. He said almost humorously, "Carson—he's back in Cetopolis. I wonder how he feels. He has no better chance than anybody else. Maybe

he's sent off spacegrams, but no ship could possibly get here in time."

Cathy shivered a little. "Let's not think about him. Just about us. We haven't much time."

And just then, very strangely, an idea came to Lon Simpson. He tensed.

After a moment, he said in a very queer voice, "This isn't a nova. It's a flare-up. The sun isn't exploding. It's just too hot, too big for the temperature inside it, and it's a closed system. So radiation pressure has been building up. Now it's got to be released. So it will spout geysers of its own substance. They'll go out over hundreds of thousands of miles. But in a couple of weeks it will be back—nearly—to normal."



He suddenly knew that. He knew why it was so. He could have explained it completely and precisely. But he didn't know how he knew. The items that added together were themselves so self evident that he didn't even wonder how he knew them. They *had* to be so!

Cathy said muffledly, her face against his shoulder, "But we won't be alive in a couple of weeks, Lon. We can't live long past daybreak."

He did not answer. There were more ideas coming into his mind. He didn't know where they came from. But again they were such self evident, unquestionable facts that he did not wonder about them. He simply paid tense, desperately concentrated attention as they formed themselves.

"We—may live," he said shakily. "There's an ionosphere up at the top of the atmosphere here, just like there is on Earth. It's made by the sunlight ionizing the thin air. The—stronger sunlight will multiply the ionization. There'll be an—actually conducting layer of air.... Yes.... The air will become a conductor, up there." He wet his lips. "If I make a—gadget to—short-circuit that conducting layer to the ground here.... When radiation photons penetrate a transparent conductor—but there aren't any transparent conductors—the photons will—follow the three-finger rule...."

"They'll move at right angles to their former course—"

He swallowed. Then he got up very quietly. He put her aside. He went to his tool shed. He climbed to the roof of the barn now filled with *thandar* leaves. He swung his axe.

The barn was roofed with aluminum over malleable plastic. The useful property of malleable plastic is that it does not yield to steady pressure, but does yield to shock. It will stay in shape indefinitely under a load, but one can tap it easily into any form one desires.

Lon swung his axe, head down. Presently he asked Cathy to climb up a ladder and hold a lantern for him. He didn't need light for the rough work—the burning desert vegetation gave enough for that. But when one wants to make a parabolic reflector by tapping with an axe, one needs light for the finer part of the job.

In Cetopolis, Carson agitatedly put his records on tape and sent it all off by spacegram. He'd previously reported on Lon Simpson, but now he knew that he was going to die. And he followed his instinct to transmit all his quite useless records, in order that his superiors might realize he had been an admirable employee. It did not occur to him that his superiors might be trying frantically to break his sending beam to demand that he find out how Lon Simpson made his power gadget and how he converted vegetation, before it was too late. They didn't succeed in breaking his beam, because Carson kept it busy.

He was true to type.

Elsewhere, other men were true to type, too. The human population of Cetus Gamma Two was very small. There were less than five thousand people on the planet—all within a hundred miles of Cetopolis, and all now on the night side. The rest of the planet's land masses scorched and shriveled and burst into flame where the sun struck them. The few small oceans heated and their surfaces even boiled. But nobody saw it. The local fauna and flora died over the space of continents.

But in the human settlement area, people acted according to their individual natures. Some few ran amok and tried to destroy everything—including themselves—before the blazing sun could return to do it. More sat in stunned silence, waiting for doom. A few dug desperately, trying to excavate caves or pits in which they or their wives or children could be safe....

But Lon pounded at his barn roof. He made a roughly parabolic mirror some three yards across. He stripped off aluminum siding and made a connection with the ground. He poured water around that connection. He built a crude multiply twisted device of copper wire and put it in the focus of the parabolic mirror.

He looked up at the sky. The stars seemed dimmer. He took the copper thing away, and they brightened a little. He carefully adjusted it until the stars were at their dimmest.

He descended to the ground again. He felt an odd incredulity about what he'd done. He didn't doubt that it would work. He was simply unable to understand how he'd thought of it.

"There, darling! Your pets are quite safe!" Rhadampsicus said pleasedly.

Nodalictha scanned the second planet. It was apparently coated with a metallic covering. But it was not quite like metal. It was misty, like an unsubstantial barrier to light—and to Nodalictha's penetrating thoughts.

"I had your male pet," Rhadampsicus explained tenderly, "set up a power beam link to the ionosphere. With several times the usual degree of ionization—because of the flaring sun—the grounded ionosphere became a *Rhinthak* screen about the planet. The more active the sun, the more dense the screen. They'll have light to see by when their side of the planet is toward the sun, but no harmful radiation can get down to them. And the screen will fade away as the sun goes back to its normal state."

Nodalictha rejoiced. Then she was a little distressed.

"But now I can't watch them!" she pouted. Rhadampsicus watched her gravely. She said ruefully, "I see, Rhadampsicus. You've spoiled me! But if I can't watch them for the time being, I won't have anything to occupy me. Darling Rhadampsicus, you must talk to me sometimes!"

He talked to her absorbedly. He seemed to think, however, that discussion of the local solar phenomena was conversation. With feminine guile, she pretended to be satisfied, but presently she went back to her housekeeping. She began to dream of their life when they had returned home, and of the residence they would inhabit there. Presently she was planning the parties she would give as a young matron, with canapés of krypton snow and zenon ice, with sprinklings of lovely red nickel bromide crystals for a garnish—

The sun rose again, and they lived. It was as if the sky were covered with a thick cloud bank which absorbed the monstrous radiation of a sun now four times its previous diameter and madly changing shape like a monstrous ameba of flame.

In time the sun set. It rose again. It set. And Cetus Gamma Two remained a living planet instead of being a scorched cinder.

When four days had gone by and nobody died, the colonists decided that they might actually keep on living. They had at first no especially logical foundation for their belief.

But Cathy boasted. And she boasted in Cetopolis. Since they were going to keep on living, the conventions required that she return to the planet's one human settlement and her duties as a beamphone operator. It wasn't proper for her to stay unchaperoned so long as she and Lon weren't married yet.

She had no difficulty with Carson. He didn't refer to her desertion. Carson had his own troubles. Now that he had decided that he would live, his problems multiplied. The colonists' barns were

filled to capacity with *thanar* leaves which would pay off their debts to the Company. He began to worry about that.

Lost without the constant directives from the Company, he had his technicians step up the power in the settlement transmitter. He knew that the screen Lon had put up would stop ordinary spacegram transmission. Even with a tight beam, he could broadcast and receive only at night, when the screen was thinnest. Even so, he had to search out holes in the screen.

The system didn't work perfectly—it wasn't two-way at all, until the Company stepped up the power in its own transmitter—but spacegrams started to get through again.

Carson smiled in relief. He began to regain some of his old arrogantly bored manner. Now that the Company's guiding hand was once more with him, nothing seemed as bad as it had been. He was able to report that something had happened to save the colony from extinction, and that Lon Simpson had probably done it.

In return, he got a spacegram demanding full particulars, and precise information on the devices he had reported Lon Simpson to have made.

Humbly, Carson obeyed his corporation.

He pumped Cathy—which was not difficult, because she was bursting with pride in Lon. She confirmed, in detail, the rumor that Lon was somehow responsible for the protective screen that was keeping everybody alive.

Carson sent the information by spacegram. He was informed that a special Company ship was heading for Cetus Gamma Two at full speed. Carson would take orders from its skipper when it arrived. Meanwhile, he would buy *thanar* leaf if absolutely necessary, but stall as long as possible. The legal staff of the Trading Company was working on the problem of adapting the system to get the new surplus supplies of *thanar* without letting anybody get anything in particular for it. He would keep secret the coming of the special ship, which was actually the space yacht of a member of the Board of Directors. And he would display great friendliness toward Lon Simpson.

The last was the difficult part, because Lon Simpson was becoming difficult. With the sun writhing as if in agony overhead—seen dimly through a permanent blessed mistiness—and changing shape from hour to hour, Lon Simpson had discovered something new to get mad about. Lon had felt definitely on top of the world. He had solved the problem of clearing his debts and getting credit sufficient for two passages back to Earth, with money there to take care of getting rich on his inventions. There was no reason to delay marriage. He wanted to get married. And through a deplorable oversight, there had been no method devised by which a legal marriage ceremony could be performed on Cetus Gamma Two.

It was one of those accidental omissions which would presently be rectified. But the legal minds who'd set up the system for the planet had been thinking of money, not marriages. They hadn't envisioned connubial bliss as a service the Company should provide. And Lon was raising Cain. His barn was literally bursting with *thanar* leaves, and he was filling up his attic, extra bedroom, living quarters and kitchen with more. He was rich. He wanted to get married. And it wasn't possible.

Lon was in a position to raise much more Cain than ordinary. He'd made an amicable bargain with his fellow colonists. They brought truckloads of miscellaneous foliage to be put into his vegetation converter, and he converted it all into *thanar* leaves. The product was split two ways. Everybody was happy—except Carson—Because every colonist had already acquired enough *thanar* leaf to pay himself out of debt, and was working on extra capital.

If this kept up, the galactic market would be broken.

Carson had nightmares about that.

So the sun went through convulsions in emptiness, and nobody on its second planet paid any attention at all. After about a week, it occasionally subsided. When that happened, the ionization of the planet's upper atmosphere lessened, the radiation screen grew thinner, and a larger proportion of light reached the surface. When the sun flared higher, the shield automatically grew thicker. An astronomical phenomenon which should have destroyed all life on the inner planets came to be taken for granted.

But events on the second planet were not without consequences elsewhere. The Board of Directors of the Cetus Gamma Trading Company simultaneously jittered and beamed with anticipation. If Lon could convert one form of vegetable product into another, then the Company's monopoly of *thanar* would vanish as soon as he got loose with his device. On the other hand, if the Company could get that device for its very own....

Thanar had a practically unlimited market. Every year a new age group of the population needed a milligram a day to keep old age away. But besides that, there was Martian *zuss* fiber, which couldn't be marketed because there wasn't enough of it, but would easily fetch a thousand credits a kilo if Lon's gadget could produce it from samples. There was that Arcturian *sicces* dust—the

pollen of an inordinately rare plant on Arcturus Four—which could be sold at more than its weight in diamonds, for perfume. And—

The directors of the Company shivered over what might happen; and gloated over what could. So they kept their fingers crossed while the space yacht of one of their number sped toward Cetus Gamma Two, manned by very trustworthy men who would carry out their instructions with care and vigor and no nonsense about it.

Lon Simpson worked with his neighbors, converting all sorts of vegetable debris—the fact that some of it was scorched did not seem to matter—into *thanas* leaf which was sound legal tender on that particular planet. From time to time he went to Cetopolis. He talked sentimentally and yearningly to Cathy. And then he went to Carson's office and raised the very devil because there was as yet no arrangement by which he and Cathy could enter into the state of holy matrimony.

Rhadampsicus looked over his notes and was very well pleased. He explained to Nodalichtha that from now on the return of Cetus Gamma to its normal condition would be a cut-and-dried affair. He would like to stay and watch it, but the important phenomena were all over now. He said solicitously that if she wanted to go on, completing their nuptial journey.... She might be anxious to see her family and friends.... She might be lonely....

Nodalichtha smiled at him. The process would have been horrifying to a human who watched, but Rhadampsicus smiled back.

"Lonely?" asked Nodalichtha coyly. "With you, Rhadampsicus?"

He impulsively twined his eye stalks about hers. A little later he was saying tenderly, "Then I'll just finish my observations, darling, and we'll go on—since you don't mind waiting."

"I'd like to see my pets again," said Nodalichtha, nestling comfortably against him.

Together, they scanned the second planet, but their thoughts could not penetrate its *Rhinthak* screen. They saw the space yacht flash up to it. Rhadampsicus inspected the minds of the bipeds inside it. Nodalichtha, of course, modestly refrained from entering the minds of male creatures other than her husband.

"Peculiar," commented Rhadampsicus. "Very peculiar. If I were a sociologist, I might find it less baffling. But they must have a very queer sort of social system. They actually intend to harm your pets, Nodalichtha, because the male now knows how to supply them all with food and energy! Isn't that strange? I wish the *Rhinthak* screen did not block off scanning.... But it will fade, presently."

"You will keep the others from harming my pets," said Nodalichtha confidently. "Do you know, darling, I think I must be quite the luckiest person in the Galaxy, to be married to you."

The space yacht landed at the field outside Cetopolis. Inhabitants of the tiny town flocked to the field to see new faces. They were disappointed. One man came out and the airlock closed. No visitors.

The skipper went into Carson's office. He closed the door firmly behind him. He had very beady eyes and a very hard-boiled expression. He looked at Carson with open contempt, and Carson felt that it was because Carson did the Company's dirty work with figures and due regard for law and order, instead of frankly and violently and without shilly-shallying.

"This Lon Simpson's got those gadgets, eh?" asked the skipper.

"Why—yes," said Carson unhappily. "He's very popular at the moment. He made something on his barn roof that kept the sun from burning us all to death, you know—that still keeps us from burning to death, for that matter."

"So if we take it away or smash it," observed the skipper, "we don't have to worry about anybody saying nasty things about us afterward. Yeah?"

Carson swallowed.

"Everybody'd die if you smashed the gadget," he admitted, "but all the *thanas* plants in existence would be burned up, too. There'd be no more *thanas*. The Company wouldn't like that."

The skipper waved his hand. "How do I get this Simpson on my ship? Take a bunch of my men and go grab him?"

"Wh-what are you going to do with him?"

"Don't you worry," said the skipper comfortingly. "We know how to handle it. He knows how to make some things the bosses want to know how to make. Once I get him on the ship, he'll tell. We got ways. Do I take some men and grab him, or will you get him on board peaceable?"

"There—ah—" Carson licked his lips. "He wants to get married. There's no provision in the legal code for it, as yet. It was overlooked. But I can tell him that as a ship captain, you—"

The skipper nodded matter of factly.

"Right. You get him and the girl on board. And I've got some orders for you. Gather up plenty of *thanas* seed. Get some starting trays with young plants in them. I'll come back in a couple of days

and take you and them on board. The stuff this guy has got is too good, understand?"

"N-no. I'm afraid I don't."

"I get this guy to tell us how to make his gadgets," the skipper explained contemptuously. "We make sure he tells us right. To be extra sure, we leave the gadgets he's got made and working back here, where he can't get to 'em and spoil 'em. But when we know all he knows—and what he only guesses, too, and my tame scientists have made the same kinda gadgets, an' they work—why, we come back and pick you up, and the *thanas* seed and the young growing plants. Then we get the gadgets this guy made here, and we head back for Earth."

"But if you take the gadget that keeps us all from being burned up—" Carson said agitatedly, "if you do, everybody here—"

"Won't that be too bad!" the skipper said ironically. "But you won't be here. You'll be on the yacht. Don't worry. Now go fix it for the girl and him to walk into our parlor."

Carson's hand shook as he reached for the beamphone. His voice was not quite normal as he explained to Cathy in the exchange that the skipper of the space yacht had the legal power to perform marriage ceremonies in space. And Carson, as a gesture of friendship to one of the most prominent colonists, had asked if the captain would oblige Cathy and Lon. The captain had agreed. If they made haste, he would take them out in space and marry them.

The skipper of the space yacht regarded him with undisguised scorn when he hung up the phone and mopped his face.

"Pretty girl, eh?" he asked contemptuously, "and you didn't have the nerve to grab her for yourself?" He did not wait for an answer. "I'll look her over. You get your stuff ready for when I come back in a couple of days."

"But—when you release them," Carson said shakily, "They'll report—"

The skipper looked at Carson without any expression at all. Then he went out.

Carson felt sick. But he was a very loyal employee of the Cetus Gamma Trading Company. From the windows of his air-conditioned office, he watched Lon Simpson greet Cathy on his arrival in Cetopolis. He saw Cathy put a sprig of *chanel* blossoms on the lapel of her very best suit, in lieu of a bridal bouquet. And he watched them go with shining faces toward the airport. He didn't try to stop them.

Later he heard the space yacht take off.

Nodalictha prepared to share the thoughts and the happiness of the female biped whose emotions were familiar, since Nodalictha was so recently a bride herself. Rhadampsicus was making notes, but he gallantly ceased when Nodalictha called to him. They sat, then, before their crude but comfortable bower on the ninth planet, all set to share the quaint rejoicing of the creatures of which Nodalictha had grown fond.

Nodalictha penetrated the thoughts of the female, in pleased anticipation. Rhadampsicus scanned the mind of the male, and his expression changed. He shifted his thought to another and another of the bipeds in the ship's company. He spoke with some distaste.

"The ones you consider your pets, Nodalictha, are amiable enough. But the others—" He frowned. "Really, darling, if you went into their minds, you'd be most displeased. They are quite repulsive. Let's forget about them and start for home. If you really care for pets, we've much more suitable creatures there."

Nodalictha pouted.

"Rhadampsicus, let's just watch their marriage ceremony. It is so cute to think of little creatures like that loving each other—and marrying—"

Rhadampsicus withdrew his thought from the space yacht and looked about the charming rural retreat he and Nodalictha had occupied. Its nitrogen-snow walls glittered in the starlight. The garden of cyanogen flowers and the border of ammonia crystals and the walkway of monoclinic sulphur, and the reflection pool of liquid hydrogen he'd installed in an odd half hour. These were simple, but they were delightful. The crudity of the space yacht with its metal walls so curiously covered over with a coating of lead oxide in hardened oil, and the vegetable gum flooring.... Rhadampsicus did not like the surroundings men made for themselves in space.

"Very well, darling," he said resignedly. "We will watch, and then we'll take off for home. I'm anxious to see what the modernists have to say when I show them my notes on this flare-up.—And of course," he added with grave humor, "you want to show your family that I haven't ill-treated you."

He was the barest trace impatient, but Nodalictha's thoughts were with the female biped in the spaceship. Her expression was distressed.

"Rhadampsicus!" she said angrily. "The other bipeds are being unkind to my pets! Do something! I don't like them!"

A sailor in a soiled uniform led them into the space yacht's saloon. The airlock clanked shut, and the yacht soared for the skies. The sailor vanished. Nobody else came near. Then Lon stiffened. He got the flavor of his surroundings. He had Cathy with him. On her account, his flesh crawled suddenly.

This was a space yacht, but of a very special kind. It was a pleasure ship. The decorations were subtly disgusting. There were pictures on the walls, and at first glance they were pretty enough, but on second glance they were disquieting, and when carefully examined they were elaborately and allusively monstrous. This was the yacht of someone denying that anything could be more desirable than pleasure—and who took his pleasure in a most unattractive fashion.

Lon grasped this much, and it occurred to him that the crew of such a yacht would be chosen for its willingness to cooperate in its owner's enterprises. And Lon went somewhat pale, for Cathy was with him.

The ship went up and up, with the dark shutters over the ports showing that it was in sunshine fierce enough to be dangerous on unshielded flesh. Presently there was the feel of maneuvering. After a time the shutters flipped open and stars were visible.

Lon went quickly to a port and looked out. The great black mass of the night side of Cetus Gamma Two filled half the firmament. It blotted out the sun. The space yacht might be two or three thousand miles up and in the planet's umbra—its shadow—which was not necessary for a space wedding, or for anything involving a reasonably brief stay in the excessive heat Cetus Gamma gave off.

There were clankings. A door opened. The skipper came in and Cathy smiled at him because she didn't realize Lon's fierce apprehension. Four other men followed, all in soiled and untidy space yacht uniforms, then two other men in more ordinary clothing. Their expressions were distinctly uneasy.

The four sailors walked matter of factly over to Lon and grabbed at him. They should have taken him completely by surprise, but he had been warned just enough to explode into battle. It was a very pretty fight, for a time. Lon kept three of them busy. One snarled with a wrenched wrist, another spat blood and teeth and a third had a closed eye before the fourth swung a chair. Then Lon hit something with his head. It was the deck, but he didn't know it.

When he came to, he was hobbled. He was not bound so he couldn't move, but his hands were handcuffed together, with six inches of chain between for play. His ankles were similarly restricted. He could move, but he could not fight. Blood was trickling down his temple and somebody was holding his head up.

The skipper said impatiently, "All right, stand back."

Lon's head was released. The skipper jerked a thumb. Men went out. Lon looked about desperately for Cathy. She was there—dead white and terrified, but apparently unharmed. She stared at Lon in wordless pleading.

"You're a suspicious guy, aren't you?" asked the skipper sardonically. "Somebody lays a finger on you and you start fighting. But you've got the idea. I'll say it plain so we can get moving. You're Lon Simpson. Carson, down on the planet, reported some nice news about you. You made a gadget that converts any sort of leaf to *thanar*. Maybe it turns stuff to other stuff, too." He paused. "We want to know how to make gadgets like that. You're gonna draw plans an' explain the theory. I got guys here to listen. We're gonna make one, from your plans an' explanations, an' it'd better work. See?"

"Carson sent for you to do this," Lon Simpson said thickly.

"He did. The Company wants it. They'll use it to make *zuss* fiber and sicces dust, and stuff like that. Maybe dream dust, too, an' so on. The point is you're gonna tell us how to make those gadgets. How about it?"

Lon licked his lips. He said slowly, "I think there's more. Go on."

"You made another gadget," said the skipper, with relish, "that turns out power without fuel. The Company wants that, too. Spacelines will pay for it. Cities will pay for it. It ought to be a pretty nice thing. You're gonna make plans and explanations of how that works and we're gonna make sure they're right. That clear?"

"Will you let us go when I've told you?" Lon asked bitterly.

"Not without one more gadget," the skipper added amiably. "You made something that put a screen around the planet yonder, so it didn't get burned up. It'd oughta be useful. The company'll put one around Mercury. Convenient for minin' operations. One around that planet that's too close to Sirius. Oh, there's plenty of places that'll be useful. So you'll get set to draw up the plans for that, too—and explanations of how it works. Then we'll talk about lettin' you go."

Lon knew that he wouldn't be let go in any case. Not after he'd told them what was wanted. Not by men who'd work on a pleasure craft like this. Not with Cathy a prisoner with him. But he might as well get all the cards down.

"And if I won't tell you what you want to know?" he asked.

The skipper shrugged his shoulders. "You were knocked out a while," he said without heat. "While we were waitin' for you to come to, we told her—" he jerked his thumb at Cathy—"what would happen to her if you weren't obligin'. We told her plenty. She knows we mean it. We won't hurt you until we've finished with her. So you'd better get set to talk. I'll let her see if she can persuade you peaceable. I'll give her ten minutes."

He went out. The door clicked shut behind him and Lon knew that this was the finish. He looked at Cathy's dazed, horror-filled eyes. He knew this wasn't a bluff. He was up against the same system that had brought colonists to Cetus Gamma Two. The brains that had planned that system had planned this. They'd gotten completely qualified men to do their dirty work in both cases.

"Lon, darling! Please kill me!" Cathy said in a hoarse whisper.

He looked at her in astonishment.

"Please kill me!" repeated Cathy desperately. "They—they can't ever dare let us go, Lon, after what they've told me! They've got to kill us both. But—Lon, darling—please kill me first...."

An idea came into Lon's mind. He surveyed it worriedly. He knew that he would have to tell what he knew and then he would be killed. The Cetus Gamma Trading Company wanted his inventions, and it would need him dead after it had them.

The idea was hopeless, but he had to try it. They knew he'd made gadgets which did remarkable things. If he made something now and persuaded them that it was a weapon....

His flesh crawled with horror. Not for himself, but for Cathy. He fumbled in his pockets. A pocket knife. A key chain. String. His face was completely gray. He ripped an upholstered seat. There were coiled springs under the foamite. He pulled away a piece of decorative molding. He knew it wouldn't work, but there wasn't anything else to do. His hands moved awkwardly, with the handcuffs limiting their movements.

Time passed. He had something finished. It was a bit of wood with a coil spring from the chair, with his key chain wrapped around it and his pocket knife set in it so that the blade would seem to make a contact. But it would achieve nothing whatever.

Cathy stared at him. Her eyes were desperate, but she believed. She'd seen three equally improbable devices perform wonders. While Lon made something that looked like the nightmare of an ultimatum sculptor, she watched in terrified hope.

He had it in his hand when the door opened again and the skipper came back into the saloon. He said prosaically, "Shall I call in the scientist guys to listen, or the persuader guys to work on her?"

"Neither. I've made another gadget," Lon said from a dry throat. "It will kill you. It'll kill everybody on the ship—from here. You're going to put us back down on the planet below."

The skipper did not look at the gadget, but at Lon's face. Then he called. The four men of the crew and the two uneasy scientists came in.

"We got to persuade," the skipper said sardonically. "He just told me he's made a new gadget that'll kill us all."

He moved unhurriedly toward Lon. Lon knew that his bluff was no good. If the thing had actually been a weapon, he'd have been confident and assured. He didn't feel that way, but he raised the thing menacingly as the skipper approached.

The skipper took it away, laughing.

"We'll tie him in a chair an' get to work on her. When he's ready to talk, we'll stop." He looked at the object in his hands. It was ridiculous to look at. It was as absurd as the device that extracted power from matter stresses, and the machine that converted one kind of vegetation into another, and the apparatus—partly barn roof—that had short-circuited the ionosphere of Cetus Gamma Two to the planet's solid surface. It looked very foolish indeed.

The skipper was amused.

"Look out, you fellas," he said humorously. "It's gonna kill you!"

He crooked his finger and the knifeblade made a contact. He swept it in mock menace about the saloon. The four crew-members and the two scientists went stiff. He gaped at them, then turned the device to stare at it incredulously. He came within its range.

He stiffened. Off-balance, he fell on the device, breaking its gimcrack fastenings and the contact which transmitted nothing that Lon Simpson could imagine coming out of it. The others fell, one by one, with peculiarly solid impacts.

Their flesh was incredibly hard. It was as solid, in fact, as so much mahogany.

Nodalictha said warmly, "You're a darling, Rhadampsicus! It was outrageous of those nasty creatures to intend to harm my pets! I'm glad you attended to them!"

"And I'm glad you're pleased, my dear," Rhadampsicus said pleasantly. "Now shall we set out for home?"

Nodalictha looked about the cosy landscape of the ninth planet of Cetus Gamma. There were jagged peaks of frozen air, and mountain ranges of water, solidified ten thousand aeons ago. There were frost-trees of nitrogen, the elaborate crystal formations of argon, and here a wide sweep of oxygen crystal sward, with tiny peeping wild crystals of deep-blue cyanogen seeming to grow more thickly by the brook of liquid hydrogen. And there was their bower; primitive, but the scene of a true honeymoon idyll.

"I almost hate to go home, Rhadampsicus," Nodalictha said. "We've been so happy here. Will you remember it for always?"

"Naturally," said Rhadampsicus. "I'm glad you've been happy."

Nodalictha snuggled up to him and twined eye stalks with him.

"Darling," she said softly, "you've been wonderful, and I've been spoiled, and you've let me be. But I'm going to be a very dutiful wife from now on, Rhadampsicus. Only it has been fun, having you be so nice to me!"

"It's been fun for me, too," replied Rhadampsicus gallantly.

Nodalictha took a last glance around, and each of her sixteen eyes glowed sentimentally. Then she scanned the far-distant spaceship in the shadow of the second planet from the now subsiding sun.

"My pets," she said tenderly. "But—Rhadampsicus, what are they doing?"

"They've discovered that the crew of their vehicle—they call it a space yacht—aren't dead, that they're only in suspended animation. And they've decided in some uneasiness that they'd better take them back to Earth to be revived."

"How nice! I knew they were sweet little creatures!"

Rhadampsicus hesitated a moment.

"From the male's mind I gather something else. Since the crew of this space yacht was incapacitated, and they were—ah—not employed on it, he and your female will bring it safely to port, and, I gather that they have a claim to great reward. Ah—it is something they call 'salvage.' He plans to use it to secure other rewards he calls 'patents' and they expect to live happily ever after."

"And," cried Nodalictha gleefully, "from the female's mind I know that she is very proud of him, because she doesn't know that you designed all the instruments he made, darling. She's speaking to him now, telling him she loves him very dearly."

Then Nodalictha blushed a little, because in a faraway space yacht Cathy had kissed Lon Simpson. The process seemed highly indecorous to Nodalictha, so recently a bride.

"Yes," said Rhadampsicus, drily. "He is returning the compliment. It is quaint to think of such small creatures—Ha! Nodalictha, you should be pleased again. He is telling her that they will be married when they reach Earth, and that she shall have a white dress and a veil and a train. But I am afraid we cannot follow to witness the ceremony."

Their tentacles linked and their positron blasts mingling, the two of them soared up from the surface of the ninth planet of Cetus Gamma. They swept away, headed for their home at the extreme outer tip of the most far-flung arm of the spiral outposts of the Galaxy.

"But still," said Nodalictha, as they swept through emptiness at a speed unimaginable to humans, "they're wonderfully cute."

"Yes, darling," Rhadampsicus agreed, unwilling to start an argument so soon after the wedding. "But not as cute as you."

On the space yacht, Lon Simpson tried to use his genius to invent a way to get his handcuffs and leg-irons off. He failed completely.

Cathy had to get the keys out of the skipper's pocket and unlock them for him.

*** END OF THE PROJECT GUTENBERG EBOOK THE SENTIMENTALISTS ***

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