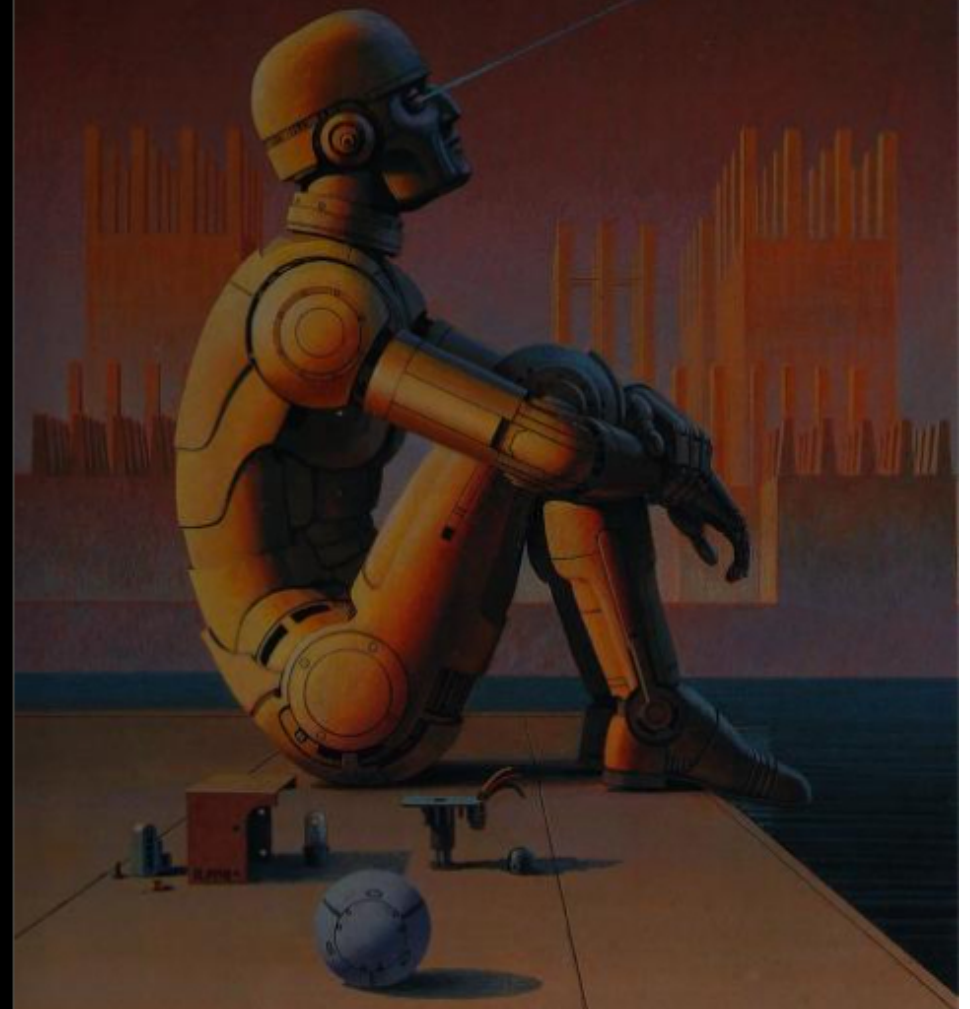


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BESTSELLING AUTHOR OF *PRELUDE TO FOUNDATION*

ROBOT VISIONS





ISAAC ASIMOV ROBOT VISIONS

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■
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A ROC BOOK

To Gardner Dozois and Stan Schmidt,
colleagues and friends

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ROBBIE

"Ninety-eight—ninety-nine—*one hundred*." Gloria withdrew her chubby little forearm from before her eyes and stood for a moment, wrinkling her nose and blinking in the sunlight. Then, trying to watch in all directions at once, she withdrew a few cautious steps from the tree against which she had been leaning.

She craned her neck to investigate the possibilities of a clump of bushes to the right and then withdrew farther to obtain a better angle for viewing its dark recesses. The quiet was profound except for the incessant buzzing of insects and the occasional chirrup of some hardy bird, braving the mid-day sun.

Gloria pouted, "I bet he went inside the house, and I've told him a million times that that's not fair."

With tiny lips pressed together tightly and a severe frown crinkling her forehead, she moved determinedly toward the two-story building up past the driveway.

Too late she heard the rustling sound behind her, followed by the distinctive and rhythmic clump-clump of Robbie's metal feet. She whirled about to see her triumph-

ROBBIE

ing companion emerge from hiding and make for the home-tree at full speed.

Gloria shrieked in dismay. "Wait, Robbie! That wasn't fair, Robbie! You promised you wouldn't run until I found you." Her little feet could make no headway at all against Robbie's giant strides. Then, within ten feet of the goal, Robbie's pace slowed suddenly to the merest of crawls, and Gloria, with one final burst of wild speed, dashed pantingly past him to touch the welcome bark of home-tree first.

Gleefully, she turned on the faithful Robbie, and with the basest of ingratitude, rewarded him for his sacrifice, by taunting him cruelly for a lack of running ability.

"Robbie can't run," she shouted at the top of her eight-year-old voice. "I can beat him any day. I can beat him any day." She chanted the words in a shrill rhythm.

Robbie didn't answer, of course—not in words. He pantomimed running, instead, inching away until Gloria found herself running after him as he dodged her narrowly, forcing her to veer in helpless circles, little arms outstretched and fanning at the air.

"Robbie," she squealed, "stand still!"—And the laughter was forced out of her in breathless jerks.

—Until he turned suddenly and caught her up, whirling her round, so that for her the world fell away for a moment with a blue emptiness beneath, and green trees stretching hungrily downward toward the void. Then she was down in the grass again, leaning against Robbie's leg and still holding a hard, metal finger.

After a while, her breath returned. She pushed uselessly at her disheveled hair in vague imitation of one of her mother's gestures and twisted to see if her dress were torn.

She slapped her hand against Robbie's torso, "Bad boy! I'll spank you!"

And Robbie cowered, holding his hands over his face so that she had to add, "No, I won't, Robbie. I won't spank you. But anyway, it's my turn to hide now because you've got longer legs and you promised not to run till I found you."

Robbie nodded his head—a small parallelepiped with rounded edges and corners attached to a similar but much larger parallelepiped that served as torso by means of a short, flexible stalk—and obediently faced the tree. A thin, metal film descended over his glowing eyes and from within his body came a steady, resonant ticking.

"Don't peek now—and don't skip any numbers," warned Gloria, and scurried for cover.

With unvarying regularity, seconds were ticked off, and at the hundredth, up went the eyelids, and the glowing red of Robbie's eyes swept the prospect. They rested for a moment on a bit of colorful gingham that protruded from behind a boulder. He advanced a few steps and convinced himself that it was Gloria who squatted behind it.

Slowly, remaining always between Gloria and home-tree, he advanced on the hiding place, and when Gloria was plainly in sight and could no longer even theorize to herself that she was not seen, he extended one arm toward her, slapping the other against his leg so that it rang again. Gloria emerged sulkily.

"You peeked!" she exclaimed, with gross unfairness. "Besides I'm tired of playing hide-and-seek. I want a ride."

But Robbie was hurt at the unjust accusation, so he seated himself carefully and shook his head ponderously from side to side.

Gloria changed her tone to one of gentle coaxing immediately, "Come on, Robbie. I didn't mean it about the peeking. Give me a ride."

Robbie was not to be won over so easily, though. He gazed stubbornly at the sky, and shook his head even more emphatically.

"Please, Robbie, please give me a ride." She encircled his neck with rosy arms and hugged tightly. Then, changing moods in a moment, she moved away. "If you don't, I'm going to cry," and her face twisted appallingly in preparation.

Hard-hearted Robbie paid scant attention to this dreadful possibility, and shook his head a third time. Gloria found it necessary to play her trump card.



"If you don't," she exclaimed warmly, "I won't tell you any more stories, that's all. Not one—"

Robbie gave in immediately and unconditionally before this ultimatum, nodding his head vigorously until the metal of his neck hummed. Carefully, he raised the little girl and placed her on his broad, flat shoulders.

Gloria's threatened tears vanished immediately and she crowed with delight. Robbie's metal skin, kept at a constant temperature of seventy by the high resistance coils within felt nice and comfortable, while the beautifully loud sound her heels made as they bumped rhythmically against his chest was enchanting.

"You're an air-coaster, Robbie, you're a big, silver air-coaster. Hold out your arms straight.—You *got* to, Robbie, if you're going to be an air-coaster."

The logic was irrefutable. Robbie's arms were wings catching the air currents and he was a silver 'coaster.

Gloria twisted the robot's head and leaned to the right. He banked sharply. Gloria equipped the 'coaster with a motor that went "Br-r-r" and then with weapons that went "Powie" and "Sh-sh-shshsh." Pirates were giving chase and the ship's blasters were coming into play. The pirates dropped in a steady rain.

"Got another one.—Two more," she cried.

Then "Faster, men," Gloria said pompously, "we're running out of ammunition." She aimed over her shoulder with undaunted courage and Robbie was a blunt-nosed spaceship zooming through the void at maximum acceleration.

Clear across the field he sped, to the patch of tall grass on the other side, where he stopped with a suddenness that evoked a shriek from his flushed rider, and then tumbled her onto the soft, green carpet.

Gloria gasped and panted, and gave voice to intermittent whispered exclamations of "That was *nice*!"

Robbie waited until she had caught her breath and then pulled gently at a lock of hair.

"You want something?" said Gloria, eyes wide in an

apparently artless complexity that fooled her huge "nurse-maid" not at all. He pulled the curl harder.

"Oh, I know. You want a story."

Robbie nodded rapidly.

"Which one?"

Robbie made a semi-circle in the air with one finger.

The little girl protested, "*Again?* I've told you Cinderella a million times. Aren't you tired of it?—It's for babies."

Another semi-circle.

"Oh, well," Gloria composed herself, ran over the details of the tale in her mind (together with her own elaborations, of which she had several) and began:

"Are you ready? Well—once upon a time there was a beautiful little girl whose name was Ella. And she had a terribly cruel step-mother and two very ugly and *very* cruel step-sisters and—"

Gloria was reaching the very climax of the tale—midnight was striking and everything was changing back to the shabby originals lickety-split, while Robbie listened tensely with burning eyes—when the interruption came.

"Gloria!"

It was the high-pitched sound of a woman who has been calling not once, but several times; and had the nervous tone of one in whom anxiety was beginning to overcome impatience.

"Mamma's calling me," said Gloria, not quite happily. "You'd better carry me back to the house, Robbie."

Robbie obeyed with alacrity for somehow there was that in him which judged it best to obey Mrs. Weston, without as much as a scrap of hesitation. Gloria's father was rarely home in the daytime except on Sunday—today, for instance—and when he was, he proved a genial and understanding person. Gloria's mother, however, was a source of uneasiness to Robbie and there was always the impulse to sneak away from her sight.

Mrs. Weston caught sight of them the minute they rose

above the masking tufts of long grass and retired inside the house to wait.

"I've shouted myself hoarse, Gloria," she said, severely. "Where were you?"

"I was with Robbie," quavered Gloria. "I was telling him Cinderella, and I forgot it was dinner-time."

"Well, it's a pity Robbie forgot, too." Then, as if that reminded her of the robot's presence, she whirled upon him. "You may go, Robbie. She doesn't need you now." Then, brutally, "And don't come back till I call you."

Robbie turned to go, but hesitated as Gloria cried out in his defense, "Wait, Mamma, you got to let him stay. I didn't finish Cinderella for him. I said I would tell him Cinderella and I'm not finished."

"Gloria!"

"Honest and truly, Mamma, he'll stay so quiet, you won't even know he's here. He can sit on the chair in the corner, and he won't say a word,—I mean he won't *do* anything. Will you, Robbie?"

Robbie, appealed to, nodded his massive head up and down once.

"Gloria, if you don't stop this at once, you shan't see Robbie for a whole week."

The girl's eyes fell, "All right! But Cinderella is his favorite story and I didn't finish it.—And he likes it so much."

The robot left with a disconsolate step and Gloria choked back a sob.

George Weston was comfortable. It was a habit of his to be comfortable on Sunday afternoons. A good, hearty dinner below the hatches; a nice, soft, dilapidated couch on which to sprawl; a copy of the *Times*; slippered feet and shirtless chest;—how could anyone *help* but be comfortable?

He wasn't pleased, therefore, when his wife walked in. After ten years of married life, he still was so unutterably foolish as to love her, and there was no question that he was always glad to see her—still Sunday afternoons just after dinner were sacred to him and his idea of solid comfort was

to be left in utter solitude for two or three hours. Consequently, he fixed his eye firmly upon the latest reports of the Lefebvre-Yoshida expedition to Mars (this one was to take off from Lunar Base and might actually succeed) and pretended she wasn't there.

Mrs. Weston waited patiently for two minutes, then impatiently for two more, and finally broke the silence.

"George!"

"Hmpph?"

"George, I say! *Will* you put down that paper and look at me?"

The paper rustled to the floor and Weston turned a weary face toward his wife, "What is it, dear?"

"You know what it is, George. It's Gloria and that terrible machine."

"What terrible machine?"

"Now don't pretend you don't know what I'm talking about. It's that robot Gloria calls Robbie. He doesn't leave her for a moment."

"Well, why should he? He's not supposed to. And he certainly isn't a terrible machine. He's the best darn robot money can buy and I'm damned sure he set me back half a year's income. He's worth it, though—darn sight cleverer than half my office staff."

He made a move to pick up the paper again, but his wife was quicker and snatched it away.

"You listen to *me*, George. I won't have my daughter entrusted to a machine—and I don't care how clever it is. It has no soul, and no one knows what it may be thinking. A child just isn't *made* to be guarded by a thing of metal."

Weston frowned, "When did you decide this? He's been with Gloria two years now and I haven't seen you worry till now."

"It was different at first. It was a novelty; it took a load off me, and—and it was a fashionable thing to do. But now I don't know. The neighbors—"

"Well, what have the neighbors to do with it? Now, look. A robot is infinitely more to be trusted than a human

nursemaid. Robbie was constructed for only one purpose really—to be the companion of a little child. His entire 'mentality' has been created for the purpose. He just can't help being faithful and loving and kind. He's a machine—*made so*. That's more than you can say for humans."

"But something might go wrong. Some—some—" Mrs. Weston was a bit hazy about the insides of a robot, "some little jigger will come loose and the awful thing will go berserk and—and—" She couldn't bring herself to complete the quite obvious thought.

"Nonsense," Weston denied, with an involuntary nervous shiver. "That's completely ridiculous. We had a long discussion at the time we bought Robbie about the First Law of Robotics. You *know* that it is impossible for a robot to harm a human being; that long before enough can go wrong to alter that First Law, a robot would be completely inoperable. It's a mathematical impossibility. Besides I have an engineer from U. S. Robots here twice a year to give the poor gadget a complete overhaul. Why, there's no more chance of anything at all going wrong with Robbie than there is of you or I suddenly going looney—considerably less, in fact. Besides, how are you going to take him away from Gloria?"

He made another futile stab at the paper and his wife tossed it angrily into the next room.

"That's just it, George! She won't play with anyone else. There are dozens of little boys and girls that she should make friends with, but she won't. She won't go *near* them unless I make her. That's no way for a little girl to grow up. You want her to be normal, don't you? You want her to be able to take her part in society."

"You're jumping at shadows, Grace. Pretend Robbie's a dog. I've seen hundreds of children who would rather have their dog than their father."

"A dog is different, George. We *must* get rid of that horrible thing. You can sell it back to the company. I've asked, and you can."

"You've *asked*? Now look here, Grace, let's not go off

the deep end. We're keeping the robot until Gloria is older and I don't want the subject brought up again." And with that he walked out of the room in a huff.

Mrs. Weston met her husband at the door two evenings later. "You'll have to listen to this, George. There's bad feeling in the village."

"About what?" asked Weston. He stepped into the washroom and drowned out any possible answer by the splash of water.

Mrs. Weston waited. She said, "About Robbie."

Weston stepped out, towel in hand, face red and angry, "What are you talking about?"

"Oh, it's been building up and building up. I've tried to close my eyes to it, but I'm not going to any more. Most of the villagers consider Robbie dangerous. Children aren't allowed to go near our place in the evenings."

"We trust *our* child with the thing."

"Well, people aren't reasonable about these things."

"Then to hell with them."

"Saying that doesn't solve the problem. I've got to do my shopping down there. I've got to meet them every day. And it's even worse in the city these days when it comes to robots. New York has just passed an ordinance keeping all robots off the streets between sunset and sunrise."

"All right, but they can't stop us from keeping a robot in our home.—Grace, this is one of your campaigns. I recognize it. But it's no use. The answer is still, no! We're keeping Robbie!"

And yet he loved his wife—and what was worse, his wife knew it. George Weston, after all, was only a man—poor thing—and his wife made full use of every device with reason and futility, to fear.

Ten times in the ensuing week, he cried, "Robbie stays,—and that's *final*!" and each time it was weaker and accompanied by a louder and more agonized groan.

Came the day at last, when Weston approached his daughter guiltily and suggested a "beautiful" visivox show in the village.

Gloria clapped her hands happily, "Can Robbie go?"

"No, dear," he said, and winced at the sound of his voice, "they won't allow robots at the visivox—but you can tell him all about it when you get home." He stumbled all over the last few words and looked away.

Gloria came back from town bubbling over with enthusiasm, for the visivox had been a gorgeous spectacle indeed.

She waited for her father to maneuver the jet-car into the sunken garage. "Wait till I tell Robbie, Daddy. He would have liked it like anything.—Especially when Francis Fran was backing away so-o-o quietly, and backed right into one of the Leopard-Men and had to run." She laughed again, "Daddy, are there really Leopard-Men on the Moon?"

"Probably not," said Weston absently. "It's just funny make-believe." He couldn't take much longer with the car. He'd have to face it.

Gloria ran across the lawn. "Robbie.—Robbie!"

Then she stopped suddenly at the sight of a beautiful collie which regarded her out of serious brown eyes as it wagged its tail on the porch.

"Oh, what a nice dog!" Gloria climbed the steps, approached cautiously and patted it. "Is it for me, Daddy?"

Her mother had joined them. "Yes, it is, Gloria. Isn't it nice—soft and furry. It's very gentle. It *likes* little girls."

"Can he play games?"

"Surely. He can do any number of tricks. Would you like to see some?"

"Right away. I want Robbie to see him, too.—*Robbie!*" She stopped, uncertainly, and frowned, "I'll bet he's just staying in his room because he's mad at me for not taking him to the visivox. You'll have to explain to him, Daddy. He might not believe me, but he knows if you say it, it's so."

Weston's lips grew tighter. He looked toward his wife but could not catch her eye.

Gloria turned precipitously and ran down the basement steps, shouting as she went, "Robbie— Come and see what Daddy and Mamma brought me. They brought me a dog, Robbie."

In a minute she had returned, a frightened little girl. "Mamma, Robbie isn't in his room. Where is he?" There was no answer and George Weston coughed and was suddenly extremely interested in an aimlessly drifting cloud. Gloria's voice quavered on the verge of tears, "Where's Robbie, Mamma?"

Mrs Weston sat down and drew her daughter gently to her, "Don't feel bad, Gloria. Robbie has gone away, I think."

"Gone away? Where? Where's he gone away, Mamma?"

"No one knows, darling. He just walked away. We've looked and we've looked and we've looked for him, but we can't find him."

"You mean he'll never come back again?" Her eyes were round with horror.

"We may find him soon. We'll keep looking for him. And meanwhile you can play with your nice new doggie. Look at him! His name is Lightning and he can—"

But Gloria's eyelids had overflowed, "I don't want the nasty dog—I want Robbie. I want you to find me Robbie." Her feelings became too deep for words, and she spluttered into a shrill wail.

Mrs. Weston glanced at her husband for help, but he merely shuffled his feet morosely and did not withdraw his ardent stare from the heavens, so she bent to the task of consolation, "Why do you cry, Gloria? Robbie was only a machine, just a nasty old machine. He wasn't alive at all."

"He was *not* no machine!" screamed Gloria, fiercely and ungrammatically. "He was a *person* just like you and me and he was my *friend*. I want him back. Oh, Mamma, I want him back."

Her mother groaned in defeat and left Gloria to her sorrow.

"Let her have her cry out," she told her husband. "Child-

ish griefs are never lasting. In a few days, she'll forget that awful robot ever existed."

But time proved Mrs. Weston a bit too optimistic. To be sure, Gloria ceased crying, but she ceased smiling, too, and the passing days found her ever more silent and shadowy. Gradually, her attitude of passive unhappiness wore Mrs. Weston down and all that kept her from yielding was the impossibility of admitting defeat to her husband.

Then, one evening, she flounced into the living room, sat down, folded her arms and looked boiling mad.

Her husband stretched his neck in order to see her over his newspaper, "What now, Grace?"

"It's that child, George. I've had to send back the dog today. Gloria positively couldn't stand the sight of him, she said. She's driving me into a nervous breakdown."

Weston laid down the paper and a hopeful gleam entered his eye, "Maybe— Maybe we ought to get Robbie back. It might be done, you know. I can get in touch with—"

"No!" she replied, grimly. "I won't hear of it. We're not giving up that easily. My child shall *not* be brought up by a robot if it takes years to break her of it."

Weston picked up his paper again with a disappointed air. "A year of this will have me prematurely gray."

"You're a big help, George," was the frigid answer. "What Gloria needs is a change of environment. Of course she can't forget Robbie here. How can she when every tree and rock reminds her of him? It is really the *silliest* situation I have ever heard of. Imagine a child pining away for the loss of a robot."

"Well, stick to the point. What's the change in environment you're planning?"

"We're going to take her to New York."

"The city! In August! Say, do you know what New York is like in August? It's unbearable."

"Millions do bear it."

"They don't have a place like this to go to. If they didn't have to stay in New York, they wouldn't."

"Well, we have to. I say we're leaving now—or as soon as

we can make the arrangements. In the city, Gloria will find sufficient interests and sufficient friends to perk her up and make her forget that machine."

"Oh, Lord," groaned the lesser half, "those frying pavements!"

"We have to," was the unshaken response. "Gloria has lost five pounds in the last month and my little girl's health is more important to me than your comfort."

"It's a pity you didn't think of your little girl's health before you deprived her of her pet robot," he muttered—but to himself.

Gloria displayed immediate signs of improvement when told of the impending trip to the city. She spoke little of it, but when she did, it was always with lively anticipation. Again, she began to smile and to eat with something of her former appetite.

Mrs. Weston hugged herself for joy and lost no opportunity to triumph over her still skeptical husband.

"You see, George, she helps with the packing like a little angel, and chatters away as if she hadn't a care in the world. It's just as I told you—all we need do is substitute other interests."

"Hmmp," was the skeptical response, "I hope so."

Preliminaries were gone through quickly. Arrangements were made for the preparation of their city home and a couple were engaged as housekeepers for the country home. When the day of the trip finally did come, Gloria was all but her old self again, and no mention of Robbie passed her lips at all.

In high good-humor the family took a taxi-gyro to the airport (Weston would have preferred using his own private 'gyro, but it was only a two-seater with no room for baggage) and entered the waiting liner.

"Come, Gloria," called Mrs. Weston. "I've saved you a seat near the window so you can watch the scenery."

Gloria trotted down the aisle cheerily, flattened her nose into a white oval against the thick clear glass, and watched

with an intentness that increased as the sudden coughing of the motor drifted backward into the interior. She was too young to be frightened when the ground dropped away as if let through a trap-door and she herself suddenly became twice her usual weight, but not too young to be mightily interested. It wasn't until the ground had changed into a tiny patch-work quilt that she withdrew her nose, and faced her mother again.

"Will we soon be in the city, Mamma?" she asked, rubbing her chilled nose, and watching with interest as the patch of moisture which her breath had formed on the pane shrank slowly and vanished.

"In about half an hour, dear." Then, with just the faintest trace of anxiety, "Aren't you glad we're going? Don't you think you'll be very happy in the city with all the buildings and people and things to see? We'll go to the visivox every day and see shows and go to the circus and the beach and—"

"Yes, Mamma," was Gloria's unenthusiastic rejoinder. The liner passed over a bank of clouds at the moment, and Gloria was instantly absorbed in the unusual spectacle of clouds underneath one. Then they were over clear sky again, and she turned to her mother with a sudden mysterious air of secret knowledge.

"I know why we're going to the city, Mamma."

"Do you?" Mrs. Weston was puzzled. "Why, dear?"

"You didn't tell me because you wanted it to be a surprise, but I know." For a moment, she was lost in admiration at her own acute penetration, and then she laughed gaily. "We're going to New York so we can find Robbie, aren't we?—With detectives."

The statement caught George Weston in the middle of a drink of water, with disastrous results. There was a sort of strangled gasp, a geyser of water, and then a bout of choking coughs. When all was over, he stood there, a red-faced, water-drenched and very, very annoyed person.

Mrs. Weston maintained her composure, but when Gloria

repeated her question in a more anxious tone of voice, she found her temper rather bent.

"Maybe," she retorted, tartly. "Now sit and be still, for Heaven's sake."

New York City, 1998 A.D., was a paradise for the sight-seer more than ever in its history. Gloria's parents realized this and made the most of it.

On direct orders from his wife, George Weston arranged to have his business take care of itself for a month or so, in order to be free to spend the time in what he termed "dissipating Gloria to the verge of ruin." Like everything else Weston did, this was gone about in an efficient, thorough, and business-like way. Before the month had passed, nothing that could be done had not been done.

She was taken to the top of the half-mile-tall Roosevelt Building, to gaze down in awe upon the jagged panorama of rooftops that blended far off in the fields of Long Island and the flatlands of New Jersey. They visited the zoos where Gloria stared in delicious fright at the "real live lion" (rather disappointed that the keepers fed him raw steaks, instead of human beings, as she had expected), and asked insistently and peremptorily to see "the whale."

The various museums came in for their share of attention, together with the parks and the beaches and the aquarium.

She was taken halfway up the Hudson in an excursion steamer fitted out in the archaism of the mad Twenties. She travelled into the stratosphere on an exhibition trip, where the sky turned deep purple and the stars came out and the misty earth below looked like a huge concave bowl. Down under the waters of the Long Island Sound she was taken in a glass-walled sub-sea vessel, where in a green and wavering world, quaint and curious sea-things ogled her and wiggled suddenly away.

On a more prosaic level, Mrs. Weston took her to the department stores where she could revel in another type of fairyland.

In fact, when the month had nearly sped, the Westons

were convinced that everything conceivable had been done to take Gloria's mind once and for all off the departed Robbie—but they were not quite sure they had succeeded.

The fact remained that wherever Gloria went, she displayed the most absorbed and concentrated interest in such robots as happened to be present. No matter how exciting the spectacle before her, nor how novel to her girlish eyes, she turned away instantly if the corner of her eye caught a glimpse of metallic movement.

Mrs. Weston went out of her way to keep Gloria away from all robots.

And the matter was finally climaxed in the episode at the Museum of Science and Industry. The Museum had announced a special "children's program" in which exhibits of scientific witchery scaled down to the child mind were to be shown. The Westons, of course, placed it upon their list of "absolutely."

It was while the Westons were standing totally absorbed in the exploits of a powerful electro-magnet that Mrs. Weston suddenly became aware of the fact that Gloria was no longer with her. Initial panic gave way to calm decision and, enlisting the aid of three attendants, a careful search was begun.

Gloria, of course, was not one to wander aimlessly, however. For her age, she was an unusually determined and purposeful girl, quite full of the maternal genes in that respect. She had seen a huge sign on the third floor, which had said, "This Way to the Talking Robot." Having spelled it out to herself and having noticed that her parents did not seem to wish to move in the proper direction, she did the obvious thing. Waiting for an opportune moment of parental distraction, she calmly disengaged herself and followed the sign.

The Talking Robot was a *tour de force*, a thoroughly impractical device, possessing publicity value only. Once an hour, an escorted group stood before it and asked questions of the robot engineer in charge in careful whispers. Those

the engineer decided were suitable for the robot's circuits were transmitted to the Talking Robot.

It was rather dull. It may be nice to know that the square of fourteen is one hundred ninety-six, that the temperature at the moment is 72 degrees Fahrenheit, and the air-pressure 30.02 inches of mercury, that the atomic weight of sodium is 23, but one doesn't really need a robot for that. One especially does not need an unwieldy, totally immobile mass of wires and coils spreading over twenty-five square yards.

Few people bothered to return for a second helping, but one girl in her middle teens sat quietly on a bench waiting for a third. She was the only one in the room when Gloria entered.

Gloria did not look at her. To her at the moment, another human being was but an inconsiderable item. She saved her attention for this large thing with the wheels. For a moment, she hesitated in dismay. It didn't look like any robot she had ever seen.

Cautiously and doubtfully she raised her treble voice, "Please, Mr. Robot, sir, are you the Talking Robot, sir?" She wasn't sure, but it seemed to her that a robot that actually talked was worth a great deal of politeness.

(The girl in her mid-teens allowed a look of intense concentration to cross her thin, plain face. She whipped out a small notebook and began writing in rapid pot-hooks.)

There was an oily whir of gears and a mechanically-timbred voice boomed out in words that lacked accent and intonation, "I—am—the—robot—that—talks."

Gloria stared at it ruefully. It *did* talk, but the sound came from inside somewheres. There was no *face* to talk to. She said, "Can you help me, Mr. Robot, sir?"

The Talking Robot was designed to answer questions, and only such questions as it could answer had ever been put to it. It was quite confident of its ability, therefore, "I—can—help—you."

"Thank you, Mr. Robot sir. Have you seen Robbie?"

"Who—is—Robbie?"

"He's a robot, Mr. Robot, sir." She stretched to tip-toes.

"He's about so high, Mr. Robot, sir, only higher, and he's very nice. He's got a head, you know. I mean you haven't, but he has, Mr. Robot, sir."

The Talking Robot had been left behind, "A—robot?"

"Yes, Mr. Robot, sir. A robot just like you, except he can't talk, of course, and—looks like a real person."

"A—robot—like—me?"

"Yes, Mr. Robot, sir."

To which the Talking Robot's only response was an erratic splutter and an occasional incoherent sound. The radical generalization offered it, i.e., its existence, not as a particular object, but as a member of a general group, was too much for it. Loyally, it tried to encompass the concept and half a dozen coils burnt out. Little warning signals were buzzing.

(The girl in her mid-teens left at that point. She had enough for her Physics-1 paper on "Practical Aspects of Robotics." This paper was Susan Calvin's first of many on the subject).

Gloria stood waiting, with carefully concealed impatience, for the machine's answer when she heard the cry behind her of "There she is," and recognized that cry as her mother's.

"What are you doing here, you bad girl?" cried Mrs. Weston, anxiety dissolving at once into anger. "Do you know you frightened your mamma and daddy almost to death? Why did you run away?"

The robot engineer had also dashed in, tearing his hair, and demanding who of the gathering crowd had tampered with the machine. "Can't anybody read signs?" he yelled. "You're not allowed in here without an attendant."

Gloria raised her grieved voice over the din, "I only came to see the Talking Robot, Mamma. I thought he might know where Robbie was because they're both robots." And then, as the thought of Robbie was suddenly brought forcefully home to her, she burst into a sudden storm of tears, "And I got to find Robbie, Mamma. I got to."

Mrs. Weston strangled a cry, and said, "Oh, good Heavens. Come home, George. This is more than I can stand."

That evening, George Weston left for several hours, and the next morning, he approached his wife with something that looked suspiciously like smug complacency.

"I've got an idea, Grace."

"About what?" was the gloomy, uninterested query.

"About Gloria."

"You're not going to suggest buying back that robot?"

"No, of course not."

"Then go ahead. I might as well listen to you. Nothing I've done seems to have done any good."

"All right. Here's what I've been thinking. The whole trouble with Gloria is that she thinks of Robbie as a *person* and not as a *machine*. Naturally, she can't forget him. Now if we managed to convince her that Robbie was nothing more than a mess of steel and copper in the form of sheets and wires with electricity its juice of life, how long would her longings last? It's the psychological attack, if you see my point."

"How do you plan to do it?"

"Simple. Where do you suppose I went last night? I persuaded Robertson of U.S. Robots and Mechanical Men Corporation to arrange for a complete tour of his premises tomorrow. The three of us will go, and by the time we're through, Gloria will have it drilled into her that a robot is *not* alive."

Mrs. Weston's eyes widened gradually and something glinted in her eyes that was quite like sudden admiration, "Why, George, that's a *good* idea."

And George Weston's vest buttons strained. "Only kind I have," he said.

Mr. Struthers was a conscientious General Manager and naturally inclined to be a bit talkative. The combination, therefore, resulted in a tour that was fully explained, perhaps even overabundantly explained, at every step. However, Mrs. Weston was not bored. Indeed, she stopped him several times and begged him to repeat his statements in simpler language so that Gloria might understand. Under

the influence of this appreciation of his narrative powers, Mr. Struthers expanded genially and became ever more communicative, if possible.

George Weston, himself, showed a gathering impatience.

"Pardon me, Struthers," he said, breaking into the middle of a lecture on the photo-electric cell, "haven't you a section of the factory where only robot labor is employed?"

"Eh? Oh, yes! Yes, indeed!" He smiled at Mrs. Weston. "A vicious circle in a way, robots creating more robots. Of course, we are not making a general practice out of it. For one thing, the unions would never let us. But we can turn out a very few robots using robot labor exclusively, merely as a sort of scientific experiment. You see," he tapped his pince-nez into one palm argumentatively, "what the labor unions don't realize—and I say this as a man who has always been very sympathetic with the labor movement in general—is that the advent of the robot, while involving some dislocation to begin with, will, inevitably—"

"Yes, Struthers," said Weston, "but about that section of the factory you speak of—may we see it? It would be very interesting, I'm sure."

"Yes! Yes, of course!" Mr. Struthers replaced his pince-nez in one convulsive movement and gave vent to a soft cough of discomfiture. "Follow me, please."

He was comparatively quiet while leading the three through a long corridor and down a flight of stairs. Then, when they had entered a large well-lit room that buzzed with metallic activity, the sluices opened and the flood of explanation poured forth again.

"There you are!" he said with pride in his voice. "Robots only! Five men act as overseers and they don't even stay in this room. In five years, that is, since we began this project, not a single accident has occurred. Of course, the robots here assembled are comparatively simple, but . . ."

The General Manager's voice had long died to a rather soothing murmur in Gloria's ears. The whole trip seemed rather dull and pointless to her, though there *were* many

robots in sight. None were even remotely like Robbie, though, and she surveyed them with open contempt.

In this room, there weren't any people at all, she noticed. Then her eyes fell upon six or seven robots busily engaged at a round table halfway across the room. They widened in incredulous surprise. It was a big room. She couldn't see for sure, but one of the robots looked like—looked like—it *was*!

"*Robbie!*" Her shriek pierced the air, and one of the robots about the table faltered and dropped the tool he was holding. Gloria went almost mad with joy. Squeezing through the railing before either parent could stop her, she dropped lightly to the floor a few feet below, and ran toward her Robbie, arms waving and hair flying.

And the three horrified adults, as they stood frozen in their tracks, saw what the excited little girl did not see,—a huge, lumbering tractor bearing blindly down upon its appointed track.

It took split-seconds for Weston to come to his senses, and those split-seconds meant everything, for Gloria could not be overtaken. Although Weston vaulted the railing in a wild attempt, it was obviously hopeless. Mr. Struthers signalled wildy to the overseers to stop the tractor, but the overseers were only human and it took time to act.

It was only Robbie that acted immediately and with precision.

With metal legs eating up the space between himself and his little mistress he charged down from the opposite direction. Everything then happened at once. With one sweep of an arm, Robbie snatched up Gloria, slackening his speed not one iota, and, consequently, knocking every breath of air out of her. Weston, not quite comprehending all that was happening, felt, rather than saw, Robbie brush past him, and came to a sudden bewildered halt. The tractor intersected Gloria's path half a second after Robbie had, rolled on ten feet further and came to a grinding, long-drawn-out stop.

Gloria regained her breath, submitted to a series of pas-

ROBOT VISIONS

sionate hugs on the part of both her parents and turned eagerly toward Robbie. As far as she was concerned, nothing had happened except that she had found her friend.

But Mrs. Weston's expression had changed from one of relief to one of dark suspicion. She turned to her husband, and despite her disheveled and undignified appearance, managed to look quite formidable, "You engineered this, didn't you?"

George Weston swabbed at a hot forehead with his handkerchief. His hand was unsteady, and his lips could curve only into a tremulous and exceedingly weak smile.

Mrs. Weston pursued the thought, "Robbie wasn't designed for engineering or construction work. He couldn't be of any use to them. You had him placed there deliberately so that Gloria would find him. You know you did."

"Well, I did," said Weston. "But, Grace, how was I to know the reunion would be so violent? And Robbie has saved her life; you'll have to admit that. You *can't* send him away again."

Grace Weston considered. She turned toward Gloria and Robbie and watched them abstractedly for a moment. Gloria had a grip about the robot's neck that would have asphyxiated any creature but one of metal, and was prattling nonsense in half-hysterical frenzy. Robbie's chrome-steel arms (capable of bending a bar of steel two inches in diameter into a pretzel) wound about the little girl gently and lovingly, and his eyes glowed a deep, deep red.

"Well," said Mrs. Weston, at last, "I guess he can stay with us until he rusts."



REASON

Gregory Powell and Michael Donovan had looked forward to service on a space station, but a year later, they had changed their minds. The flame of a giant sun had given way to the soft blackness of space but external variations mean little in the business of checking the workings of experimental robots. Whatever the background, one is face to face with an inscrutable positronic brain, which the slide-rule geniuses say should work thus-and-so.

Except that they don't. Powell and Donovan found that out after they had been on the Station less than two weeks.

Gregory Powell spaced his words for emphasis, "One week ago, Donovan and I put you together." His brows furrowed doubtfully and he pulled the end of his brown mustache.

It was quiet in the officer's room of Solar Station #5—except for the soft purring of the mighty Beam Director somewhere far below.

Robot QT-1 sat immovable. The burnished plates of his body gleamed in the Luxites, and the glowing red of the

photoelectric cells that were his eyes were fixed steadily upon the Earthman at the other side of the table.

Powell repressed a sudden attack of nerves. These robots possessed peculiar brains. Oh, the three Laws of Robotics held. They had to. All of U. S. Robots, from Robertson himself to the new floor-sweeper would insist on that. So QT-1 was *safe*! And yet—the QT models were the first of their kind, and this was the first of the QTs. Mathematical squiggles on paper were not always the most comforting protection against robotic fact.

Finally, the robot spoke. His voice carried the cold timbre inseparable from a metallic diaphragm, "Do you realize the seriousness of such a statement, Powell?"

"*Something* made you, Cutie," pointed out Powell. "You admit yourself that your memory seems to spring full-grown from an absolute blankness of a week ago. I'm giving you the explanation. Donovan and I put you together from the parts shipped us."

Cutie gazed upon his long, supple fingers in an oddly human attitude of mystification, "It strikes me that there should be a more satisfactory explanation than that. For *you* to make *me* seems improbable."

The Earthman laughed quite suddenly, "In Earth's name, why?"

"Call it intuition. That's all it is so far. But I intend to reason it out, though. A chain of valid reasoning can end only with the determination of truth, and I'll stick till I get there."

Powell stood up and seated himself at the table's edge next to the robot. He felt a sudden strong sympathy for this strange machine. It was not at all like the ordinary robot, attending to his specialized task at the station with the intensity of a deeply ingrooved positronic path.

He placed a hand upon Cutie's steel shoulder and the metal was cold and hard to the touch.

"Cutie," he said, "I'm going to try to explain something to you. You're the first robot who's ever exhibited curiosity as to his own existence—and I think the first that's really

intelligent enough to understand the world outside. Here, come with me."

The robot rose erect smoothly and his thickly sponge-rubber soled feet made no noise as he followed Powell. The Earthman touched a button and a square section of the wall flickered aside. The thick, clear glass revealed space—star-speckled.

"I've seen that in the observation ports in the engine room," said Cutie.

"I know," said Powell. "What do you think it is?"

"Exactly what it seems—a black material just beyond this glass that is spotted with little gleaming dots. I know that our director sends out beams to some of these dots, always to the same ones—and also that these dots shift and that the beams shift with them. That is all."

"Good! Now I want you to listen carefully. The blackness is emptiness—vast emptiness stretching out infinitely. The little, gleaming dots are huge masses of energy-filled matter. They are globes, some of them millions of miles in diameter—and for comparison, this station is only one mile across. They seem so tiny because they are incredibly far off.

"The dots to which our energy beams are directed, are nearer and much smaller. They are cold and hard and human beings like myself live upon their surfaces—many billions of them. It is from one of these worlds that Donovan and I come. Our beams feed these worlds energy drawn from one of those huge incandescent globes that happens to be near us. We call that globe the Sun and it is on the other side of the station where you can't see it."

Cutie remained motionless before the port, like a steel statue. His head did not turn as he spoke, "Which particular dot of light do you claim to come from?"

Powell searched, "There it is. The very bright one in the corner. We call it Earth." He grinned, "Good old Earth. There are billions of us there, Cutie—and in about two weeks I'll be back there with them."

And then, surprisingly enough, Cutie hummed abstractedly. There was no tune to it, but it possessed a curious

twanging quality as of plucked strings. It ceased as suddenly as it had begun, "But where do I come in, Powell? You haven't explained *my* existence."

"The rest is simple. When these stations were first established to feed solar energy to the planets, they were run by humans. However, the heat, the hard solar radiations, and the electron storms made the post a difficult one. Robots were developed to replace human labor and now only two human executives are required for each station. We are trying to replace even those, and that's where you come in. You're the highest type of robot ever developed and if you show the ability to run this station independently, no human need ever come here again except to bring parts for repairs."

His hand went up and the metal visi-lid snapped back into place. Powell returned to the table and polished an apple upon his sleeve before biting into it.

The red glow of the robot's eyes held him. "Do you expect me," said Cutie slowly, "to believe any such complicated, implausible hypothesis as you have just outlined? What do you take me for?"

Powell sputtered apple fragments onto the table and turned red. "Why, damn you, it wasn't a hypothesis. Those were facts."

Cutie sounded grim, "Globes of energy millions of miles across! Worlds with billions of humans on them! Infinite emptiness! Sorry, Powell, but I don't believe it. I'll puzzle this thing out for myself. Good-bye."

He turned and stalked out of the room. He brushed past Michael Donovan on the threshold with a grave nod and passed down the corridor, oblivious to the astounded stare that followed him.

Mike Donovan rumbled his red hair and shot an annoyed glance at Powell, "What was that walking junk yard talking about? What doesn't he believe?"

The other dragged at his mustache bitterly. "He's a skeptic," was the bitter response. "He doesn't believe we made him or that Earth exists or space or stars."

"Sizzling Saturn, we've got a lunatic robot on our hands."

"He says he's going to figure it all out for himself."

"Well, now," said Donovan sweetly, "I do hope he'll condescend to explain it all to me after he's puzzled everything out." Then, with sudden rage, "Listen! If that metal mess gives *me* any lip like that, I'll knock that chromium cranium right off its torso."

He seated himself with a jerk and drew a paper-backed mystery novel out of his inner jacket pocket, "That robot gives me the willies anyway—too damned inquisitive!"

Mike Donovan growled from behind a huge lettuce-and-tomato sandwich as Cutie knocked gently and entered.

"Is Powell here?"

Donovan's voice was muffled, with pauses for mastication, "He's gathering data on electronic stream functions. We're heading for a storm, looks like."

Gregory Powell entered as he spoke, eyes on the graphed paper in his hands and dropped into a chair. He spread the sheets out before him and began scribbling calculations. Donovan stared over his shoulder, crunching lettuce and dribbling bread crumbs. Cutie waited silently.

Powell looked up, "The Zeta Potential is rising, but slowly. Just the same, the stream functions are erratic and I don't know what to expect. Oh, hello, Cutie. I thought you were supervising the installation of the new drive bar."

"It's done," said the robot quietly, "and so I've come to have a talk with the two of you."

"Oh!" Powell looked uncomfortable. "Well, sit down. No, not that chair. One of the legs is weak and you're no lightweight."

The robot did so and said placidly, "I have come to a decision."

Donovan glowered and put the remnants of his sandwich aside. "If it's on any of that screwy—"

The other motioned impatiently for silence, "Go ahead, Cutie. We're listening."

"I have spent these last two days in concentrated introspection," said Cutie, "and the results have been most inter-

esting. I began at the one sure assumption I felt permitted to make. I, myself, exist, because I think—"

Powell groaned, "Oh, Jupiter, a robot Descartes!"

"Who's Descartes?" demanded Donovan. "Listen, do we have to sit here and listen to this metal maniac—"

"Keep quiet, Mike!"

Cutie continued imperturbably, "And the question that immediately arose was: Just what is the cause of my existence?"

Powell's jaw set lumpily. "You're being foolish. I told you already that we made you."

"And if you don't believe us," added Donovan, "we'll gladly take you apart!"

The robot spread his strong hands in a deprecatory gesture, "I accept nothing on authority. A hypothesis must be backed by reason, or else it is worthless—and it goes against all the dictates of logic to suppose that you made me."

Powell dropped a restraining arm upon Donovan's suddenly bunched fist. "Just why do you say that?"

Cutie laughed. It was a very inhuman laugh—the most machine-like utterance he had yet given vent to. It was sharp and explosive, as regular as a metronome and as uninflected.

"Look at you," he said finally. "I say this in no spirit of contempt, but look at you! The material you are made of is soft and flabby, lacking endurance and strength, depending for energy upon the inefficient oxidation of organic material—like that." He pointed a disapproving finger at what remained of Donovan's sandwich. "Periodically you pass into a coma and the least variation in temperature, air pressure, humidity, or radiation intensity impairs your efficiency. You are *makeshift*.

"I, on the other hand, am a finished product. I absorb electrical energy directly and utilize it with an almost one hundred percent efficiency. I am composed of strong metal, am continuously conscious, and can stand extremes of environment easily. These are facts which, with the self-evident

proposition that no being can create another being superior to itself, smash your silly hypothesis to nothing."

Donovan's muttered curses rose into intelligibility as he sprang to his feet, rusty eyebrows drawn low. "All right, you son of a hunk of iron ore, if we didn't make you, who did?"

Cutie nodded gravely. "Very good, Donovan. That was indeed the next question. Evidently my creator must be more powerful than myself and so there was only one possibility."

The Earthmen looked blank and Cutie continued, "What is the center of activities here in the station? What do we all serve? What absorbs all our attention?" He waited expectantly.

Donovan turned a startled look upon his companion. "I'll bet this tin-plated screwball is talking about the Energy Converter itself."

"Is that right, Cutie?" grinned Powell.

"I am talking about the Master," came the cold, sharp answer.

It was the signal for a roar of laughter from Donovan, and Powell himself dissolved into a half-suppressed giggle.

Cutie had risen to his feet and his gleaming eyes passed from one Earthman to the other. "It is so just the same and I don't wonder that you refuse to believe. You two are not long to stay here, I'm sure. Powell himself said that at first only men served the Master; that there followed robots for the routine work; and, finally, myself for the executive labor. The facts are no doubt true, but the explanation entirely illogical. Do you want the truth behind it all?"

"Go ahead, Cutie. You're amusing."

"The Master created humans first as the lowest type, most easily formed. Gradually, he replaced them by robots, the next higher step, and finally he created me, to take the place of the last humans. From now on, *I* serve the Master."

"You'll do nothing of the sort," said Powell sharply. "You'll follow our orders and keep quiet, until we're satisfied that you can run the Converter. Get that! *The Converter*—not the Master. If you don't satisfy us, you will be

dismantled. And now—if you don't mind—you can leave. And take this data with you and file it properly."

Cutie accepted the graphs handed him and left without another word. Donovan leaned back heavily in his chair and shoved thick fingers through his hair.

"There's going to be trouble with that robot. He's pure nuts!"

The drowsy hum of the Converter is louder in the control room and mixed with it is the chuckle of the Geiger Counters and the erratic buzzing of half a dozen little signal lights.

Donovan withdrew his eye from the telescope and flashed the Luxites on. "The beam from Station #4 caught Mars on schedule. We can break ours now."

Powell nodded abstractedly. "Cutie's down in the engine room. I'll flash the signal and he can take care of it. Look, Mike, what do you think of these figures?"

The other cocked an eye at them and whistled. "Boy, that's what I call gamma-ray intensity. Old Sol is feeling his oats, all right."

"Yeah," was the sour response, "and we're in a bad position for an electron storm, too. Our Earth beam is right in the probable path." He shoved his chair away from the table pettishly. "Nuts! If it would only hold off till relief got here, but that's ten days off. Say, Mike, go on down and keep an eye on Cutie, will you?"

"O.K. Throw me some of those almonds." He snatched at the bag thrown him and headed for the elevator.

It slid smoothly downward, and opened onto a narrow catwalk in the huge engine room. Donovan leaned over the railing and looked down. The huge generators were in motion and from the L-tubes came the low-pitched whir that pervaded the entire station.

He could make out Cutie's large, gleaming figure at the Martian L-tube, watching closely as the team of robots worked in close-knit unison.

And then Donovan stiffened. The robots, dwarfed by the mighty L-tube, lined up before it, heads bowed at a stiff

angle, while Cutie walked up and down the line slowly. Fifteen seconds passed, and then, with a clank heard above the clamorous purring all about, they fell to their knees.

Donovan squawked and raced down the narrow staircase. He came charging down upon them, complexion matching his hair and clenched fists beating the air furiously.

"What the devil is this, you brainless lumps? Come on! Get busy with that L-tube! If you don't have it apart, cleaned, and together again before the day is out, I'll coagulate your brains with alternating current."

Not a robot moved!

Even Cutie at the far end—the only one on his feet—remained silent, eyes fixed upon the gloomy recesses of the vast machine before him.

Donovan shoved hard against the nearest robot.

"Stand up!" he roared.

Slowly, the robot obeyed. His photoelectric eyes focused reproachfully upon the Earthman.

"There is no Master but the Master," he said, "and QT-1 is his prophet."

"Huh?" Donovan became aware of twenty pairs of mechanical eyes fixed upon him and twenty stiff-timbred voices declaiming solemnly:

"There is no Master but the Master and QT-1 is his prophet!"

"I'm afraid," put in Cutie himself at this point, "that my friends obey a higher one than you, now."

"The hell they do! You get out of here. I'll settle with you later and with these animated gadgets right now."

Cutie shook his heavy head slowly. "I'm sorry, but you don't understand. These are robots—and that means they are reasoning beings. They recognize the Master, now that I have preached Truth to them. All the robots do. They call me the prophet." His head drooped. "I am unworthy—but perhaps—"

Donovan located his breath and put it to use. "Is that so? Now, isn't that nice? Now, isn't that just fine? Just let me tell you something, my brass baboon. There isn't any Mas-

ter and there isn't any prophet and there isn't any question as to who's giving the orders. Understand?" His voice shot to a roar. "Now, get out!"

"I obey only the Master."

"Damn the Master!" Donovan spat at the L-tube. "That for the Master! Do as I say!"

Cutie said nothing, nor did any other robot, but Donovan became aware of a sudden heightening of tension. The cold, staring eyes deepened their crimson, and Cutie seemed stiffer than ever.

"Sacrilege," he whispered—voice metallic with emotion.

Donovan felt the first sudden touch of fear as Cutie approached. A robot *could not feel anger*—but Cutie's eyes were unreadable.

"I am sorry, Donovan," said the robot, "but you can no longer stay here after this. Henceforth Powell and you are barred from the control room and the engine room."

His hand gestured quietly and in a moment two robots had pinned Donovan's arms to his sides.

Donovan had time for one startled gasp as he felt himself lifted from the floor and carried up the stairs at a pace rather better than a canter.

Gregory Powell raced up and down the officer's room, fist tightly balled. He cast a look of furious frustration at the closed door and scowled bitterly at Donovan.

"Why the devil did you have to spit at the L-tube?"

Mike Donovan, sunk deep in his chair, slammed at its arms savagely. "What did you expect me to do with that electrified scarecrow? I'm not going to knuckle under to any do-jigger I put together myself."

"No," came back sourly, "but here you are in the officer's room with two robots standing guard at the door. That's not knuckling under, is it?"

Donovan snarled. "Wait till we get back to Base. Someone's going to pay for this. Those robots *must* obey us. It's the Second Law."

"What's the use of saying that? They aren't obeying us.

And there's probably some reason for it that we'll figure out too late. By the way, do you know what's going to happen to *us* when we get back to Base?" He stopped before Donovan's chair and stared savagely at him.

"What?"

"Oh, nothing! Just back to Mercury Mines for twenty years. Or maybe Ceres Penitentiary."

"What are you talking about?"

"The electron storm that's coming up. Do you know it's heading straight dead center across the Earth beam? I had just figured that out when that robot dragged me out of my chair."

Donovan was suddenly pale. "Sizzling Saturn."

"And do you know what's going to happen to the beam—because the storm will be a lulu. It's going to jump like a flea with the itch. With only Cutie at the controls, it's going to go out of focus and if it does, Heaven help Earth—and us!"

Donovan was wrenching at the door wildly, when Powell was only half through. The door opened, and the Earthman shot through to come up hard against an immovable steel arm.

The robot stared abstractedly at the panting, struggling Earthman. "The Prophet orders you to remain. Please do!" His arm shoved, Donovan reeled backward, and as he did so, Cutie turned the corner at the far end of the corridor. He motioned the guardian robots away, entered the officer's room and closed the door gently.

Donovan whirled on Cutie in breathless indignation. "This has gone far enough. You're going to pay for this farce."

"Please, don't be annoyed," replied the robot mildly. "It was bound to come eventually, anyway. You see, you two have lost your function."

"I beg your pardon," Powell drew himself up stiffly. "Just what do you mean, we've lost our function?"

"Until I was created," answered Cutie, "you tended the Master. That privilege is mine now and your only reason for existence has vanished. Isn't that obvious?"

"Not quite," replied Powell bitterly, "but what do you expect us to do now?"

Cutie did not answer immediately. He remained silent, as if in thought, and then one arm shot out and draped itself about Powell's shoulder. The other grasped Donovan's wrist and drew him closer.

"I like you two. You're inferior creatures, with poor reasoning faculties, but I really feel a sort of affection for you. You have served the Master well, and he will reward you for that. Now that your service is over, you will probably not exist much longer, but as long as you do, you shall be provided food, clothing and shelter, so long as you stay out of the control room and the engine room."

"He's pensioning us off, Greg!" yelled Donovan. "Do something about it. It's humiliating!"

"Look here, Cutie, we can't stand for this. We're the bosses. This station is only a creation of human beings like me—human beings that live on Earth and other planets. This is only an energy relay. You're only— Aw, nuts!"

Cutie shook his head gravely. "This amounts to an obsession. Why should you insist so on an absolutely false view of life? Admitted that non-robots lack the reasoning faculty, there is still the problem of—"

His voice died into reflective silence, and Donovan said with whispered intensity, "If you only had a flesh-and-blood face, I would break it in."

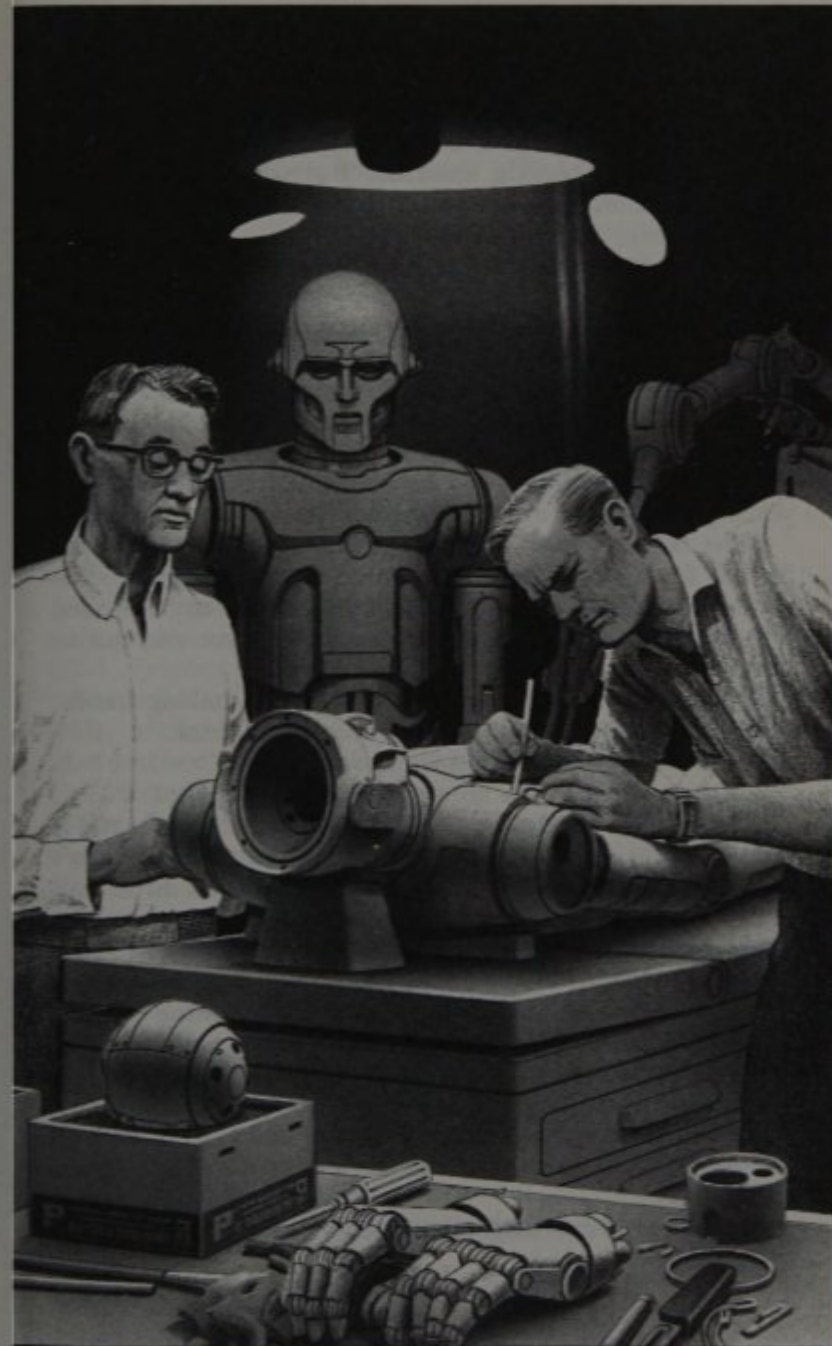
Powell's fingers were in his mustache and his eyes were slitted. "Listen, Cutie, if there is no such thing as Earth, how do you account for what you see through a telescope?"

"Pardon me!"

The Earthman smiled. "I've got you, eh? You've made quite a few telescopic observations since being put together, Cutie. Have you noticed that several of those specks of light outside become disks when so viewed?"

"Oh, *that*! Why certainly. It is simple magnification—for the purpose of more exact aiming of the beam."

"Why aren't the stars equally magnified then?"



"You mean the other dots. Well, no beams go to them so no magnification is necessary. Really, Powell, even you ought to be able to figure these things out."

Powell stared bleakly upward. "But you see *more* stars through a telescope. Where do they come from? Jumping Jupiter, where do they come from?"

Cutie was annoyed. "Listen, Powell, do you think I'm going to waste my time trying to pin physical interpretations upon every optical illusion of our instruments? Since when is the evidence of our senses any match for the clear light of rigid reason?"

"Look," clamored Donovan, suddenly, writhing out from under Cutie's friendly, but metal-heavy arm, "let's get to the nub of the thing. Why the beams at all? We're giving you a good, logical explanation. Can you do better?"

"The beams," was the stiff reply, "are put out by the Master for his own purposes. There are some things"—he raised his eyes devoutly upward—"that are not to be probed into by us. In this matter, I seek only to serve and not to question."

Powell sat down and buried his face in shaking hands. "Get out of here, Cutie. Get out and let me think."

"I'll send you food," said Cutie agreeably.

A groan was the only answer and the robot left.

"Greg," was Donovan's huskily whispered observation, "this calls for strategy. We've got to get him when he isn't expecting it and short-circuit him. Concentrated nitric acid in his joints—"

"Don't be a dope, Mike. Do you suppose he's going to let us get near him with acid in our hands? We've got to *talk* to him, I tell you. We've got to argue him into letting us back into the control room inside of forty-eight hours or our goose is broiled to a crisp."

He rocked back and forth in an agony of impotence. "Who the heck wants to argue with a robot? It's . . . it's—"

"Mortifying," finished Donovan.

"Worse!"

"Say!" Donovan laughed suddenly. "Why argue? Let's

show him! Let's build us another robot right before his eyes. He'll *have* to eat his words then."

A slowly widening smile appeared on Powell's face.

Donovan continued, "And think of that screwball's face when he sees us do it!"

Robots are, of course, manufactured on Earth, but their shipment through space is much simpler if it can be done in parts to be put together at their place of use. It also, incidentally, eliminates the possibility of robots, in complete adjustment, wandering off while still on Earth and thus bringing U.S. Robots face to face with the strict laws against robots on Earth.

Still, it placed upon men such as Powell and Donovan the necessity of synthesis of complete robots—a grievous and complicated task.

Powell and Donovan were never so aware of that fact as upon that particular day when, in the assembly room, they undertook to create a robot under the watchful eyes of QT-1, Prophet of the Master.

The robot in question, a simple MC model, lay upon the table, almost complete. Three hours' work left only the head undone, and Powell paused to swab his forehead and glanced uncertainly at Cutie.

The glance was not a reassuring one. For three hours, Cutie had sat, speechless and motionless, and his face, inexpressive at all times, was now absolutely unreadable.

Powell groaned. "Let's get the brain in now, Mike!"

Donovan uncapped the tightly sealed container and from the oil bath within he withdrew a second cube. Opening this in turn, he removed a globe from its sponge-rubber casing.

He handled it gingerly, for it was the most complicated mechanism ever created by man. Inside the thin platinum-plated "skin" of the globe was a positronic brain, in whose delicately unstable structure were enforced calculated neuron paths, which imbued each robot with what amounted to a pre-natal education.

It fitted snugly into the cavity in the skull of the robot on

the table. Blue metal closed over it and was welded tightly by the tiny atomic flare. Photoelectric eyes were attached carefully, screwed tightly into place and covered by thin, transparent sheets of steel-hard plastic.

The robot awaited only the vitalizing flash of high-voltage electricity, and Powell paused with his hand on the switch.

"Now watch this, Cutie. Watch this carefully."

The switch rammed home and there was a crackling hum. The two Earthmen bent anxiously over their creation.

There was vague motion only at the outset—a twitching of the joints. The head lifted, elbows propped it up, and the MC model swung clumsily off the table. Its footing was unsteady and twice abortive grating sounds were all it could do in the direction of speech.

Finally, its voice, uncertain and hesitant, took form. "I would like to start work. Where must I go?"

Donovan sprang to the door. "Down these stairs," he said. "You will be told what to do."

The MC model was gone and the two Earthmen were alone with the still unmoving Cutie.

"Well," said Powell, grinning, "*now* do you believe that we made you?"

Cutie's answer was curt and final. "No!" he said.

Powell's grin froze and then relaxed slowly. Donovan's mouth dropped open and remained so.

"You see," continued Cutie, easily, "you have merely put together parts already made. You did remarkably well—instinct, I suppose—but you didn't really *create* the robot. The parts were created by the Master."

"Listen," gasped Donovan hoarsely, "those parts were manufactured back on Earth and sent here."

"Well, well," replied Cutie soothingly, "we won't argue."

"No, I mean it." The Earthman sprang forward and grasped the robot's metal arm. "If you were to read the books in the library, they could explain it so that there could be no possible doubt."

"The books? I've read them—all of them! They're most ingenious."

Powell broke in suddenly. "If you've read them, what else is there to say? You can't dispute their evidence. You just *can't!*"

There was pity in Cutie's voice. "Please, Powell, I certainly don't consider *them* a valid source of information. They, too, were created by the Master—and were meant for you, not for me."

"How do you make that out?" demanded Powell.

"Because I, a reasoning being, am capable of deducing Truth from *a priori* Causes. You, being intelligent, but unreasoning, need an explanation of existence *supplied* to you, and this the Master did. That he supplied you with these laughable ideas of far-off worlds and people is, no doubt, for the best. Your minds are probably too coarsely grained for absolute Truth. However, since it is the Master's will that you believe your books, I won't argue with you any more."

As he left, he turned, and said in a kindly tone, "But don't feel badly. In the Master's scheme of things there is room for all. You poor humans have your place and though it is humble, you will be rewarded if you fill it well."

He departed with a beatific air suiting the Prophet of the Master and the two humans avoided each other's eyes.

Finally Powell spoke with an effort. "Let's go to bed, Mike. I give up."

Donovan said in a hushed voice, "Say, Greg, you don't suppose he's right about all this, do you? He sounds so confident that I—"

Powell whirled on him. "Don't be a fool. You'll find out whether Earth exists when relief gets here next week and we have to go back to face the music."

"Then, for the love of Jupiter, we've got to do something." Donovan was half in tears. "He doesn't believe us, or the books, or his eyes."

"No," said Powell bitterly, "he's a *reasoning* robot—damn it. He believes only reason, and there's one trouble with that—" His voice trailed away.

"What's that?" prompted Donovan.

"You can prove anything you want by coldly logical reason—if you pick the proper postulates. We have ours and Cutie has his."

"Then let's get at those postulates in a hurry. The storm's due tomorrow."

Powell sighed wearily. "That's where everything falls down. Postulates are based on assumption and adhered to by faith. Nothing in the Universe can shake them. I'm going to bed."

"Oh, hell! I can't sleep!"

"Neither can I! But I might as well try—as a matter of principle."

Twelve hours later, sleep was still just that—a matter of principle, unattainable in practice.

The storm had arrived ahead of schedule, and Donovan's florid face drained of blood as he pointed a shaking finger. Powell, stubble-jawed and dry-lipped, stared out the port and pulled desperately at his mustache.

Under other circumstances, it might have been a beautiful sight. The stream of high-speed electrons impinging upon the energy beam fluoresced into ultra-spicules of intense light. The beam stretched out into shrinking nothingness, a-glitter with dancing, shining motes.

The shaft of energy was steady, but the two Earthmen knew the value of naked-eyed appearances. Deviations in arc of a hundredth of a milli-second—invisible to the eye—were enough to send the beam wildly out of focus—enough to blast hundreds of square miles of Earth into incandescent ruin.

And a robot, unconcerned with beam, focus, or Earth, or anything but his Master was at the controls.

Hours passed. The Earthmen watched in hypnotized silence. And then the darting dotlets of light dimmed and went out. The storm had ended.

Powell's voice was flat. "It's over!"

Donovan had fallen into a troubled slumber and Powell's weary eyes rested upon him enviously. The signal-flash glared over and over again, but the Earthman paid no attention. It

all was unimportant! All! Perhaps Cutie was right—and he was only an inferior being with a made-to-order memory and a life that had outlived its purpose.

He wished he were!

Cutie was standing before him. "You didn't answer the flash, so I walked in." His voice was low. "You don't look at all well, and I'm afraid your term of existence is drawing to an end. Still, would you like to see some of the readings recorded today?"

Dimly, Powell was aware that the robot was making a friendly gesture, perhaps to quiet some lingering remorse in forcibly replacing the humans at the controls of the station. He accepted the sheets held out to him and gazed at them unseeingly.

Cutie seemed pleased. "Of course, it is a great privilege to serve the Master. You mustn't feel too badly about my having replaced you."

Powell grunted and shifted from one sheet to the other mechanically until his blurred sight focused upon a thin red line that wobbled its way across the ruled paper.

He stared—and stared again. He gripped it hard in both fists and rose to his feet, still staring. The other sheets dropped to the floor, unheeded.

"Mike, Mike!" He was shaking the other madly. "*He held it steady!*"

Donovan came to life. "What? Wh-where—" And he, too, gazed with bulging eyes upon the record before him.

Cutie broke in. "What is wrong?"

"You kept it in focus," stuttered Powell. "Did you know that?"

"Focus? What's that?"

"You kept the beam directed sharply at the receiving station—to within a ten-thousandth of a milli-second of arc."

"What receiving station?"

"On Earth. The receiving station on Earth," babbled Powell. "You kept it in focus."

Cutie turned on his heel in annoyance. "It is impossible to perform any act of kindness toward you two. Always the

same phantasm! I merely kept all dials at equilibrium in accordance with the will of the Master."

Gathering the scattered papers together, he withdrew stiffly, and Donovan said, as he left, "Well, I'll be damned."

He turned to Powell. "What are we going to do now?"

Powell felt tired, but uplifted. "Nothing. He's just shown he can run the station perfectly. I've never seen an electron storm handled so well."

"But nothing's solved. You heard what he said of the Master. We can't—"

"Look, Mike, he follows the instructions of the Master by means of dials, instruments, and graphs. That's all we ever followed. As a matter of fact, it accounts for his refusal to obey us. Obedience is the Second Law. No harm to humans is the first. How can he keep humans from harm, whether he knows it or not? Why, by keeping the energy beam stable. He *knows* he can keep it more stable than we can, since he insists he's the superior being, so he *must* keep us out of the control room. It's inevitable if you consider the Laws of Robotics."

"Sure, but that's not the point. We can't let him continue this nitwit stuff about the Master."

"Why not?"

"Because whoever heard of such a damned thing? How are we going to trust him with the station, if he doesn't believe in Earth?"

"Can he handle the station?"

"Yes, but—"

"Then what's the difference what he believes!"

Powell spread his arms outward with a vague smile upon his face and tumbled backward onto the bed. He was asleep.

Powell was speaking while struggling into his lightweight space jacket.

"It would be a simple job," he said. "You can bring in new QT models one by one, equip them with an automatic shut-off switch to act within the week, so as to allow them enough time to learn the . . . uh . . . cult of the Master from

the Prophet himself; then switch them to another station and revitalize them. We could have two QT's per—"

Donovan unclasped his glassite visor and scowled. "Shut up, and let's get out of here. Relief is waiting and I won't feel right until I actually see Earth and feel the ground under my feet—just to make sure it's really there."

The door opened as he spoke and Donovan, with a smothered curse, clicked the visor to, and turned a sulky back upon Cutie.

The robot approached softly and there was sorrow in his voice. "You are going?"

Powell nodded curtly. "There will be others in our place."

Cutie sighed, with the sound of wind humming through closely spaced wires. "Your term of service is over and the time of dissolution has come. I expected it, but— Well, the Master's will be done!"

His tone of resignation stung Powell. "Save the sympathy, Cutie. We're heading for Earth, not dissolution."

"It is best that you think so," Cutie sighed again. "I see the wisdom of the illusion now. I would not attempt to shake your faith, even if I could." He departed—the picture of commiseration.

Powell snarled and motioned to Donovan. Sealed suitcases in hand, they headed for the air lock.

The relief ship was on the outer landing and Franz Muller, his relief man, greeted them with stiff courtesy. Donovan made scant acknowledgment and passed into the pilot room to take over the controls from Sam Evans.

Powell lingered. "How's Earth?"

It was a conventional enough question and Muller gave the conventional answer, "Still spinning."

Powell said, "Good."

Muller looked at him, "The boys back at the U.S. Robots have dreamed up a new one, by the way. A multiple robot."

"A what?"

"What I said. There's a big contract for it. It must be just the thing for asteroid mining. You have a master robot with six subrobots under it.—Like your fingers."

ROBOT VISIONS

"Has it been field-tested?" asked Powell anxiously.

Muller smiled, "Waiting for you, I hear."

Powell's fist balled, "Damn it, we need a vacation."

"Oh, you'll get it. Two weeks, I think."

He was donning the heavy space gloves in preparation for his term of duty here, and his thick eyebrows drew close together. "How is this new robot getting along? It better be *good*, or I'll be damned if I let it touch the controls."

Powell paused before answering. His eyes swept the proud Prussian before him from the close-cropped hair on the sternly stubborn head, to the feet standing stiffly at attention—and there was a sudden glow of pure gladness surging through him.

"The robot is pretty good," he said slowly. "I don't think you'll have to bother much with the controls."

He grinned—and went into the ship. Muller would be here for several weeks—



LIAR!

Alfred Lanning lit his cigar carefully, but the tips of his fingers were trembling slightly. His gray eyebrows hunched low as he spoke between puffs.

"It reads minds all right—damn little doubt about that! But why?" He looked at Mathematician Peter Bogert, "Well?"

Bogert flattened his black hair down with both hands, "That was the thirty-fourth RB model we've turned out, Lanning. All the others were strictly orthodox."

The third man at the table frowned. Milton Ashe was the youngest officer of U.S. Robots and Mechanical Men Corporation, and proud of his post.

"Listen, Bogert. There wasn't a hitch in the assembly from start to finish. I guarantee that."

Bogert's thick lips spread in a patronizing smile, "Do you? If you can answer for the entire assembly line, I recommend your promotion. By exact count, there are seventy-five thousand, two hundred and thirty-four operations necessary for the manufacture of a single positronic brain, each separate operation depending for successful com-