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Cover by
RICHARD ARBIB
Illustrating
THE YEAR
OF THE JACKPOT

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In This Corner

WITH this issue, Willy Ley begins his monthly department "For Your Information." It should be interesting and useful in many ways. For one thing, Mr. Ley proposes to have a good deal of variety, ranging from complete articles, like this month's study of moons, to brief reports on significant developments in science.

In addition, he has undertaken the job of answering all questions submitted by readers, *either in the magazine or by mail.* Please be reasonable, though—it isn't fair to ask him to write a complete thesis. If that sounds preposterous, you don't know the crust of some people. Names and addresses will be used unless there is a specific request to withhold them. The ones in this issue were sent directly to Mr. Ley and not to the magazine, so there is a legal barrier to printing the names, even though the senders may approve or actually desire it.

In addressing your queries to Mr. Ley, send them to GALAXY Publishing Corp., 421 Hudson Street, New York 14. *If you have other matters to discuss at the same time, please put them on one sheet and the question(s) on another.* We don't want to cut up letters so that Mr. Ley will get whatever applies to his department and we retain the rest. Very untidy and hell on filing.

Willy Ley is precisely the man to run a feature like this, which provides a fine opportunity to tell you something about him.

He was born in Germany in 1906, and, like many of us who belong roughly to the same generation, spent considerable time hunting through the libraries for science fiction in his youth. However, he was hit by a stroke of luck that might have killed us with joy—he became an officer of the German Rocket Society in 1927, and then technical adviser for UFA on such dream movies as "The Girl in the Moon," "Metropolis," etc.

By the way, if you happen to have a print of "The Girl in the Moon," or know someone who has, he and Fritz Lang, the director, would be enormously grateful for the chance to make a print at their own expense. You will naturally be given credit for your invaluable aid.

Mr. Ley's life, as well as many others', became complicated by a painter of exceedingly mean ability and even meaner politics and ethics. In 1935, Mr. Ley

thought it advisable to go elsewhere. Hence, America has a pretty wonderful citizen, who has helped greatly in the development and popularization of rocketry. His books are authoritative; he is consulted as an expert and is in hot demand as a speaker.

One specialty might be enough for most people, but Willy Ley is also a noted naturalist and has never been referred to as a slouch in the physical sciences.

Mr. Ley is about five-eleven and seems to weigh 190 pounds; he has a calm and reasonable disposition, but I would not advise anyone to ask him to take off his black-rimmed eyeglasses and step outside.

He is married to an artist and ballet dancer named Olga, a dainty creature of astonishing grace and endurance. Keeping two small girls disentangled from piles of research material is a major job, but she also manages to illustrate much of his work.

It's an honor to have Willy Ley as a contributing editor. He is waiting for your questions; don't let him go to waste.

A GRATIFYING number of readers have asked what I'm like. This should be one of my favorite subjects, but the truth is that my life is an old story to me.

I'm five-nine, 155 stripped (I just weighed myself at the corner drugstore to verify). Born in Montreal in 1914 in the first month of World War I. Named H(orace) L(eonard) after a prompt casualty in the Princess Pat Regiment. I can't pretend to be fond of my name, but I don't use initials to escape it; that was decided upon by an editor, though other editors have used the whole thing. Having had 32 pen names, I find the problem shrug-worthy.

Educated in the U. S., though frustrated as a small boy when all history books agreed England lost the Revolutionary War.

Married (September, 1939) and have one son (born December, 1941) and am not superstitious, knock on wood, but hesitate to get born or married again or have another kid.

Had the usual jobs while learning to write: junior pharmacist, shoe salesman, floor scraper, apprentice upholsterer, etc. Wrote and sold over 5,000,000 words and edited or published more than two dozen magazines of all kinds.

GALAXY, of course, is my own dream come true. I know I sometimes push too hard, but that's because everyone wants his dream to be perfect.

Apprehensive readers have asked if I'm susceptible to "scientific" fads or cults. I'd turn in my blue pencil first.

—H. L. GOLD

THE YEAR

Illustrated by WILLER

OF THE JACKPOT

By ROBERT A. HEINLEIN

Occasionally, a story has to be clearly labeled fiction. Here is one instance—

AT first Potiphar Breen did not notice the girl who was undressing.

She was standing at a bus stop only ten feet away. He was indoors, but that would not have kept him from noticing; he was seated in a drugstore booth adjacent to the bus stop; there was nothing between Potiphar and the young lady but plate glass and an occasional pedestrian.

Nevertheless he did not look up when she began to peel. Propped up in front of him was a Los Angeles *Times*; beside it, still unopened, were the *Herald-Express* and the *Daily News*. He was scanning the newspaper carefully, but the headline stories got only a passing glance.

He noted the maximum and minimum temperatures in Brownsville, Texas, and entered them in a neat black notebook. He did the same with the closing prices of three blue chips and

two dogs on the New York Exchange, as well as the total number of shares.

He then began a rapid sifting of minor news stories, from time to time entering briefs of them in his little book.

The items he recorded seemed randomly unrelated — among them a publicity release in which Miss National Cottage Cheese Week announced that she intended to marry and have twelve children by a man who could prove that he had been a lifelong vegetarian, a circumstantial but wildly unlikely Flying Saucer report, and a call for prayers for rain throughout Southern California.

Potiphar had just written down the names and addresses of three residents of Watts, California, who had been miraculously healed at a tent meeting of the God-is-All First Truth Brethren by the Reverend Dickie Bottomley, the eight-year-old evangelist, and was preparing to tackle the *Herald-Express*, when he glanced over his reading glasses and saw the amateur ecdysiast on the street corner outside.

He stood up, placed his glasses in their case, folded the newspapers and put them carefully in his right coat pocket, counted out the exact amount of his check and added fifteen per cent. He then took his raincoat from a hook, placed it over his arm, and went outside.

BY now the girl was practically down to the buff. It seemed to Potiphar Breen that she had quite a lot of buff, yet she had not pulled much of a house. The corner newsboy had stopped hawking his disasters and was grinning at her, and a mixed pair of transvestites who were apparently waiting for the bus had their eyes on her. None of the passers-by stopped. They glanced at her, and then, with the self-conscious indifference to the unusual of the true Southern Californian, they went on their various ways.

The transvestites were frankly staring. The male member of the team wore a frilly feminine blouse, but his skirt was a conservative Scottish kilt. His female companion wore a business suit and Homburg hat; she stared with lively interest.

As Breen approached, the girl hung a scrap of nylon on the bus stop bench, then reached for her shoes. A police officer, looking hot and unhappy, crossed with the lights and came up to them.

"Okay," he said in a tired voice, "that'll be all, lady. Get them duds back on and clear out of here."

The female transvestite took a cigar out of her mouth. "Just

what business is it of yours, officer?" she asked.

The cop turned to her. "Keep out of this!" He ran his eyes over her getup, and that of her companion. "I ought to run both of you in, too."

The transvestite raised her eyebrows. "Arrest us for being clothed, arrest her for not being. I think I'm going to like this." She turned to the girl, who was standing still and saying nothing, as if she were puzzled by what was going on. "I'm a lawyer, dear." She pulled a card from her vest pocket. "If this uniformed Neanderthal persists in annoying you, I'll be delighted to handle him."

The man in kilts said, "Grace! Please!"

She shook him off. "Quiet, Norman. This *is* our business." She went on to the policeman, "Well? Call the wagon. In the meantime, my client will answer no questions."

The official looked unhappy enough to cry and his face was getting dangerously red. Breen quietly stepped forward and slipped his raincoat around the shoulders of the girl.

She looked startled and spoke for the first time. "Uh — thanks." She pulled the coat about her, cape fashion.

The female attorney glanced at Breen then back to the cop. "Well, officer? Ready to arerst us?"

He shoved his face close to hers. "I ain't going to give you the satisfaction!" He sighed and added, "Thanks, Mr. Breen. You know this lady?"

"I'll take care of her. You can forget it, Kawonski."

"I sure hope so. If she's with you, I'll do just that. But get her out of here, Mr. Breen — please!"

The lawyer interrupted. "Just a moment. You're interfering with my client."

Kawonski said, "Shut up, you! You heard Mr. Breen — she's with him. Right, Mr. Breen?"

"Well — yes. I'm a friend. I'll take care of her."

The transvestite said suspiciously, "I didn't hear *her* say that."

Her companion said, "Grace! There's our bus."

"And I didn't hear her say she was your client," the cop retorted. "You look like a —" his words were drowned out by the bus brakes — "and besides that, if you don't climb on that bus and get off my territory, I'll . . . I'll . . ."

"You'll what?"

"Grace! We'll miss our bus."

"Just a moment, Norman. Dear, is this man really a friend of yours? Are you with him?"

The girl looked uncertainly at

Breen, then said in a low voice, "Uh, yes. He is. I am."

"Well . . ." The lawyer's companion pulled at her arm. She shoved her card into Breen's hand and got on the bus. It pulled away.

Breen pocketed the card.

KAWONSKI wiped his forehead. "Why did you do it. lady?" he said peevishly.

The girl looked puzzled. "I — I don't know."

"You hear that, Mr. Breen? That's what they all say. And if you pull 'em in, there's six more the next day. The Chief said —" He sighed. "The Chief said — well, if I had arrested her like that female shyster wanted me to, I'd be out at a Hundred and Ninety-sixth and Ploughed Ground tomorrow morning, thinking about retirement. So get her out of here, will you?"

The girl said, "But —"

"No 'buts', lady. Just be glad a real gentleman like Mr. Breen is willing to help you." He gathered up her clothes, handed them to her. When she reached for them, she again exposed an uncustomary amount of skin. Kawonski hastily gave the clothing to Breen instead, who crowded them into his coat pockets.

She let Breen lead her to where his car was parked, got in and tucked the raincoat around her so that she was rather more dressed than a girl usually is. She looked at him.

She saw a medium-sized and undistinguished man who was slipping down the wrong side of thirty-five and looked older. His eyes had that mild and slightly naked look of the habitual spectacles-wearer who is not at the moment with glasses. His hair was gray at the temples and thin on top. His herringbone suit, black shoes, white shirt, and neat tie smacked more of the East than of California.

He saw a face which he classified as "pretty" and "wholesome" rather than "beautiful" and "glamorous." It was topped by a healthy mop of light brown hair. He set her age at twenty-five, give or take eighteen months. He smiled gently, climbed in without speaking and started his car.

He turned up Doheny Drive and east on Sunset. Near La Cienega, he slowed down. "Feeling better?"

"Uh, I guess so Mr. — Breen?"

"Call me Potiphar. What's your name? Don't tell me if you don't want to."

"Me? I'm — I'm Meade Barstow."

"Thank you, Meade. Where do you want to go? Home?"

"I suppose so. Oh, my, no. I can't go home like *this*." She

clutched the coat tightly to her.

"Parents?"

"No. My landlady. She'd be shocked to death."

"Where, then?"

She thought. "Maybe we could stop at a filling station and I could sneak into the ladies' room."

"Maybe. See here, Meade — my house is six blocks from here and has a garage entrance. You could get inside without being seen."

She stared. "You don't *look* like a wolf!"

"Oh, but I am! The worst sort." He whistled and gnashed his teeth. "See? But Wednesday is my day off."

She looked at him and dimpled. "Oh, well! I'd rather wrestle with you than with Mrs. Megeath. Let's go."

HE turned up into the hills. His bachelor diggings were one of the many little frame houses clinging like fungus to the brown slopes of the Santa Monica Mountains. The garage was notched into this hill; the house sat on it.

He drove in, cut the ignition, and led her up a teetery inside stairway into the living room.

"In there," he said, pointing. "Help yourself." He pulled her clothes out of his coat pockets and handed them to her.

She blushed and took them, disappeared into his bedroom. He heard her turn the key in the lock. He settled down in his easy chair, took out his notebook, and started with the *Herald-Express*.

He was finishing the *Daily News* and had added several notes to his collection when she came out. Her hair was neatly rolled; her face was restored; she had brushed most of the wrinkles out of her skirt. Her sweater was neither too tight nor deep cut, but it was pleasantly filled. She reminded him of well water and farm breakfasts.

He took his raincoat from her, hung it up, and said, "Sit down, Meade."

She said uncertainly, "I had better go."

"If you must, but I had hoped to talk with you."

"Well — " She sat down on the edge of his couch and looked around. The room was small, but as neat as his necktie and as clean as his collar. The fireplace was swept; the floor was bare and polished. Books crowded bookshelves in every possible space. One corner was filled by an elderly flat-top desk; the papers on it were neatly in order. Near it, on its own stand, was a small electric calculator. To her right, french windows gave out on a tiny porch over the garage. Beyond it she could see the sprawl-

ing city, where a few neon signs were already blinking.

She sat back a little. "This is a nice room — Potiphar. It looks like you."

"I take that as a compliment. Thank you." She did not answer; he went on, "Would you like a drink?"

"Oh, would I!" She shivered. "I guess I've got the jitters."

He stood up. "Not surprising. What'll it be?"

She took Scotch and water, no ice; he was a Bourbon-and-gin-gerale man. She soaked up half her highball in silence, then put it down, squared her shoulders and said, "Potiphar?"

"Yes, Meade?"

"Look, if you brought me here to make a pass, I wish you'd go ahead and make it. It won't do you a bit of good, but it makes me nervous to wait."

He said nothing and did not change his expression.

She went on uneasily, "Not that I'd blame you for trying — under the circumstances. And I *am* grateful. But . . . well, it's just that I don't — "

He came over and took both her hands. "I haven't the slightest thought of making a pass at you. Nor need you feel grateful. I butted in because I was interested in your case."

"My case? Are you a doctor? A psychiatrist?"

He shook his head. "I'm a mathematician. A statistician, to be precise."

"Huh? I don't get it."

"Don't worry about it. But I would like to ask some questions. May I?"

"Oh, sure! Of course! I owe you that much — and then some."

"You owe me nothing. Want your drink sweetened?"

She gulped the balance and handed him her glass, then followed him out into the kitchen. He did an exact job of measuring and gave it back.

"Now tell me why you took your clothes off," he said.

SHE frowned. "I don't know. I *don't* know. I don't *know*. I guess I just went crazy." She added, round-eyed, "But I don't feel crazy. Could I go off my rocker and not know it?"

"You're not crazy . . . not more so than the rest of us," he amended. "Tell me, where did you see someone else do this?"

"Huh? I never have."

"Where did you read about it?"

"But I haven't. Wait a minute — those people up in Canada. Dooka-somethings."

"Doukhobors. That's all? No bareskin swimming parties? No strip poker?"

She shook her head. "No. You may not believe it, but I was the

kind of a little girl who undressed under her nightie." She colored and added, "I still do — unless I remember to tell myself it's silly."

"I believe it. No news stories?"

"No. Yes, there was! About two weeks ago, I think it was. Some girl in a theater — in the audience, I mean. But I thought it was just publicity. You know the stunts they pull here."

He shook his head. "It wasn't. February 3rd, the Grand Theater, Mrs. Alvin Copley. Charges dismissed."

"How did *you* know?"

"Excuse me." He went to his desk, dialed the City News Bureau. "Alf? This is Pot Breen. They still sitting on that story? . . . Yes, the Gypsy Rose file. Any new ones today?"

He waited. Meade thought that she could make out swearing.

"Take it easy, Alf — this hot weather can't last forever. Nine, eh? Well, add another — Santa Monica Boulevard, late this afternoon. No arrest." He added, "Nope, nobody got her name. A middle-aged woman with a cast in one eye. I happened to see it . . . who, me? Why would I want to get mixed up? But it's rounding into a very, very interesting picture."

He put the phone down.

Meade said, "Cast in one eye, indeed!"

"Shall I call him back and give him your name?"

"Oh, no!"

"Very well. Now, Meade, we seemed to have located the point of contagion in your case — Mrs. Copley. What I'd like to know next is how you felt, what you were thinking about, when you did it."

She was frowning intently. "Wait a minute, Potiphar. Do I understand that *nine other girls* have pulled the stunt I pulled?"

"Oh, no. Nine others *today*. You are — " he paused briefly — "the three hundred and nineteenth case in Los Angeles County since the first of the year. I don't have figures on the rest of the country, but the suggestion to clamp down on the stories came from the eastern news services when the papers here put our first cases on the wire. That proves that it's a problem elsewhere, too."

"You mean that women all over the country are peeling off their clothes in public? Why, how shocking!"

HE said nothing. She blushed again and insisted, "Well, it *is* shocking, even if it was me, this time."

"No, Meade. One case is shocking; over three hundred makes it scientifically interesting. That's why I want to know how it felt.

Tell me about it."

"But — all right, I'll try. I told you I don't know why I did it; I still don't. I —"

"You remember it?"

"Oh, yes! I remember getting up off the bench and pulling up my sweater. I remember unzipping my skirt. I remember thinking I would have to hurry because I could see my bus stopped two blocks down the street. I remember how *good* it felt when I finally —" She paused and looked puzzled. "But I still don't know why."

"What were you thinking about just before you stood up?"

"I don't remember."

"Visualize the street. What was passing by? Where were your hands? Were your legs crossed or uncrossed? Was there anybody near you? What were you thinking about?"

"Nobody was on the bench with me. I had my hands in my lap. Those characters in the mixed-up clothes were standing nearby, but I wasn't paying attention. I wasn't thinking much except that my feet hurt and I wanted to get home — and how unbearably hot and sultry the weather was. Then —" her eyes became distant — "suddenly I knew what I had to do and it was very urgent that I do it. So I stood up and I — and I —" Her voice became shrill.

"Take it easy!" he said sharply. "Don't do it again."

"Huh? Why, Mr. Breen! I wouldn't do anything like that."

"Of course not. Then what happened after you undressed?"

"Why, you put your raincoat around me and you know the rest." She faced him. "Say Potiphar, what were you doing with a raincoat? It hasn't rained in weeks. This is the driest, hottest rainy season in years."

"In sixty-eight years, to be exact."

"Sixty —"

"I carry a raincoat anyhow. Just a notion of mine, but I feel that when it does rain, it's going to rain awfully hard." He added, "Forty days and forty nights, maybe."

She decided that he was being humorous and laughed.

He went on, "Can you remember how you got the idea of undressing?"

She swirled her glass and thought. "I simply don't know."

He nodded. "That's what I expected."

"I don't understand — unless you think I'm crazy. Do you?"

"No. I think you had to do it and could not help it and don't know why and can't know why."

"But *you* know." She said it accusingly.

"Maybe. At least I have some figures. Ever take any interest in

statistics, Meade?"

She shook her head. "Figures confuse me. Never mind statistics — *I want to know why I did what I did!*"

He looked at her very soberly. "I think we're lemmings, Meade."

SHE looked puzzled, then horrified. "You mean those little furry mouselike creatures? The ones that —"

"Yes. The ones that periodically make a death migration, untill millions, hundreds of millions of them drown themselves in the sea. Ask a lemming why he does it. If you could get him to slow up his rush toward death, even money says he would rationalize his answer as well as any college graduate. But he does it because he has to — and so do we."

"That's a horrid idea, Potiphar."

"Maybe. Come here, Meade. I'll show you figures that confuse me, too." He went to his desk and opened a drawer, took out a packet of cards. "Here's one. Two weeks ago, a man sues an entire state legislature for alienation of his wife's affection — and the judge lets the suit be tried. Or this one — a patent application for a device to lay the globe over on its side and warm up the arctic regions. Patent denied, but the inventor took in over three hundred thousand dollars in down payments on North Pole real estate before the postal authorities stepped in. Now he's fighting the case and it looks as if he might win. And here — prominent bishop proposes applied courses in the so-called facts of life in high schools."

He put the card away hastily. "Here's a dilly — a bill introduced in the Alabama lower house to repeal the laws of atomic energy. Not the present statutes, but the natural laws concerning nuclear physics: the wording makes that plain." He shrugged. "How silly can you get?"

"They're crazy."

"No, Meade. One like that might be crazy; a lot of them becomes a lemming death march. No, don't object — I've plotted them on a curve. The last time we had anything like this was the so-called Era of Wonderful Nonsense. But this one is much worse." He delved into a lower drawer, hauled out a graph. "The amplitude is more than twice as great and we haven't reached peak. What the peak will be, I don't dare guess — three separate rhythms, reinforcing."

She peered at the curves. "You mean that the lad with the arctic real estate deal is somewhere on this line?"

"He adds to it. And back here on the last crest are the flagpole sitters and the goldfish swallow-

ers and the Ponzi hoax and the marathon dancers and the man who pushed a peanut up Pikes Peak with his nose. You're on the new crest — or you will be when I add you in."

She made a face. "I don't like it"

"Neither do I. But it's as clear as a bank statement. This year the human race is letting down its hair, flipping its lip with a finger, and saying, *'Wubba, wubba, wubba.'* "

She shivered. "Do you suppose I could have another drink? Then I'll go."

"I have a better idea. I owe you a dinner for answering questions. Pick a place and we'll have a cocktail before."

She chewed her lip. "You don't owe me anything. And I don't feel up to facing a restaurant crowd. I might — I might — "

"No, you wouldn't," he said sharply. "It doesn't hit twice."

"You're sure? Anyhow, I don't want to face a crowd." She glanced at his kitchen door. "Have you anything to eat in there? I can cook."

"Um, breakfast things. And there's a pound of ground top round in the freezer compartment and some rolls. I sometimes make hamburgers when I don't want to go out."

She headed for the kitchen. "Drunk or sober, fully dressed or — or naked, I can cook. You'll see."

HE did see. Open-faced sandwiches with the meat married to toasted buns and the flavor garnished rather than suppressed by scraped Bermuda onion and thin-sliced dill, a salad made from things she had scrounged out of his refrigerator, potatoes crisp but not vulcanized. They ate it on the tiny balcony, sopping it down with cold beer.

He sighed and wiped his mouth. "Yes, Meade, you can cook."

"Some day I'll arrive with proper materials and pay you back. Then I'll prove it."

"You've already proved it. Nevertheless, I accept. But I tell you three times—which makes it true, of course — that you owe me nothing."

"No? If you hadn't been a Boy Scout, I'd be in jail."

Breen shook his head. "The police have orders to keep it quiet at all costs — to keep it from growing. You saw that. And, my dear, you weren't a person to me at the time. I didn't even see your face."

"You saw plenty else!"

"Truthfully, I didn't look. You were just a — a statistic."

She toyed with her knife and said puzzled, "I'm not sure, but I think I've just been insulted. In all the twenty-five years that I've

fought men off, more or less successfully, I've been called a lot of names — but a 'statistic?' Why, I ought to take your slide rule and beat you to death with it."

"My dear young lady —"

"I'm not a lady, that's for sure. But I'm *not* a statistic, either."

"My dear Meade, then. I wanted to tell you, before you did anything hasty, that in college I wrestled varsity middleweight."

She grinned and dimpled. "That's more the talk a girl likes to hear. I was beginning to be afraid you had been assembled in an adding machine factory. Potty, you're really a dear."

"If that is a diminutive of my given name, I like it. But if it refers to my waist line, I definitely resent it."

She reached across and patted his stomach. "I like your waist line; lean and hungry men are difficult. If I were cooking for you regularly, I'd really pad it."

"Is that a proposal?"

"Let it lie, let it lie. Potty, do you really think the whole country is losing its buttons?"

He sobered at once. "It's worse than that."

"Huh?"

"Come inside. I'll show you."

THEY gathered up dishes and dumped them in the sink, Breen talking all the while.

"As a kid, I was fascinated by numbers. Numbers are pretty things and they combine in such interesting configurations. I took my degree in math, of course, and got a job as a junior actuary with Midwestern Mutual — the insurance outfit. That was fun. No way on Earth to tell when a particular man is going to die, but an absolute certainty that so many men of a certain age group would die before a certain date. The curves were so lovely — and they always worked out. Always. You didn't have to know *why;* you could predict with dead certainty and never know why. The equations worked; the curves were right.

"I was interested in astronomy, too; it was the one science where individual figures worked out neatly, completely, and accurately, down to the last decimal point that the instruments were good for. Compared with astronomy, the other sciences were mere carpentry and kitchen chemistry.

"I found there were nooks and crannies in astronomy where individual numbers won't do, where you have to go over to statistics, and I became even more interested. I joined the Variable Star Association and I might have gone into astronomy professionally, instead of what I'm in now — business consultation — if I

hadn't gotten interested in something else."

"'Business consultation?'" repeated Meade. "Income tax work?"

"Oh, no. That's too elementary. I'm the numbers boy for a firm of industrial engineers. I can tell a rancher exactly how many of his Hereford bull calves will be sterile. Or I can tell a motion picture producer how much rain insurance to carry on location. Or maybe how big a company in a particular line must be to carry its own risk in industrial accidents. And I'm right. I'm always right."

"Wait a minute. Seems to me a big company would *have* to have insurance."

"Contrariwise. A really big corporation begins to resemble a statistical universe."

"Huh?"

"Never mind. I got interested in something else — cycles. Cycles are everything, Meade. And everywhere. The tides. The seasons. Wars. Love. Everybody knows that in the spring the young man's fancy lightly turns to what the girls never stopped thinking about, but did you know that it runs in an eighteen-year-plus cycle as well? And that a girl born at the wrong swing of the curve doesn't stand nearly as good a chance as her older or younger sister?"

"Is *that* why I'm still a doddering old maid?"

"You're twenty-five?" He pondered. "Maybe, but your chances are improving again; the curve is swinging up. Anyhow, remember you are just one statistic; the curve applies to the group. Some girls get married every year."

"Don't call me a statistic," she repeated firmly.

"Sorry. And marriages match up with acreage planted to wheat, with wheat cresting ahead. You could almost say that planting wheat makes people get married."

"Sounds silly."

"It *is* silly. The whole notion of cause-and-effect is probably superstition. But the same cycle shows a peak in house building right after a peak in marriages."

"Now that makes sense."

"Does it? How many newlyweds do you know who can afford to build a house? You might as well blame it on wheat acreage. We don't know *why;* it just *is*."

"Sun spots, maybe?"

"You can correlate Sun spots with stock prices, or Columbia River salmon, or woman's skirts. And you are just as much justified in blaming short skirts for Sun spots as you are in blaming Sun spots for salmon. We don't know. But the curves go on just the same."

"But there has to be some *reason* behind it."

"Does there? That's mere assumption. A fact has no 'why.' There it stands, self-demonstrating. Why did you take your clothes off today?"

She frowned. "That's not fair."

"Maybe not. But I want to show you why I'm worried."

HE went into the bedroom, came out with a large roll of tracing paper.

"We'll spread it on the floor. Here they are, all of them. The 54-year cycle — see the Civil War there? See how it matches in? The eighteen and one-third-year cycle, the 9-plus cycle, the 41-month shorty, the three rhythms of Sun spots — everything, all combined in one grand chart. Mississippi River floods, fur catches in Canada, stock market prices, marriages, epidemics, freight-car loadings, bank clearings, locust plagues, divorces, tree growth, wars, rainfall, Earth magnetism, building construction, patents applied for, murders — you name it; I've got it there."

She stared at the bewildering array of wavy lines. "But, Potty, what does it mean?"

"It means that these things all happen, in regular rhythm, whether we like it or not. It means that when skirts are due to go up, all the stylists in Paris can't make 'em go down. It means that when prices are going down, all the controls and supports and government planning can't make 'em go up." He pointed to a curve. "Take a look at the grocery ads. Then turn to the financial page and read how the Big Brains try to double-talk their way out of it. It means that when an epidemic is due, it happens, despite all the public health efforts. It means we're lemmings."

She pulled her lip. "I don't like it. 'I am the master of my fate,' and so forth. I've got free will, Potty. I know I have — I can feel it."

"I imagine every little neutron in an atom bomb feels the same way. He can go *spung!* or he can sit still, just as he pleases. But statistical mechanics work out all the same and the bomb goes off — which is what I'm leading up to. See anything odd there, Meade?"

She studied the chart, trying not to let the curving lines confuse her.

"They sort of bunch up over at the right end."

"You're dern tootin' they do! See that dotted vertical line? That's right now — and things are bad enough. But take a look at that solid vertical; that's about six months from now—and that's when we get it. Look at the cycles — the long ones, the short ones, all of them. Every single last one of them reaches either a trough or

s crest exactly on — or almost on — that line."

"That's bad?"

"What do you think? Three of the big ones troughed back in 1929 and the depression almost ruined us . . . even with the big 54-year cycle supporting things. Now we've got the big one troughing — and the few crests are not things that help. I mean to say, tent caterpillars and influenza don't do us any good. Meade, if statistics mean anything, this tired old planet hasn't seen a trend like this since Eve went into the apple business. I'm scared."

She searched his face. "Potty, you're not simply having fun with me? You know I can't check up on you."

"I wish to heaven I were. No, Meade, I can't fool about numbers; I wouldn't know how. This is it. 1952 — The Year of the Jackpot."

MEADE was very silent as he drove her home. When they approached West Los Angeles, she said, "Potty?"

"Yes, Meade?"

"What do we *do* about it?"

"What do you do about a hurricane? You pull in your ears.

What can you do about an atom bomb? You try to outguess it, not be there when it goes off. What else can you do?"

"Oh." She was silent for a few moments, then added, "Potty, will you tell me which way to jump?"

"Huh? Oh, sure! If I can figure it out."

He took her to her door, turned to go.

She said, "Potty!"

He faced her. "Yes, Meade?"

She grabbed his head, shook it — then kissed him fiercely on the mouth. "There, is that just a statistic?"

"Uh, no."

"It had better not be," she said dangerously. "Potty, I think I'm going to have to change your curve."

II

RUSSIANS REJECT UN NOTE
MISSOURI FLOOD DAMAGE
EXCEEDS 1951 RECORD
MISSISSIPPI MESSIAH DEFIES
COURT
NUDIST CONVENTION STORMS
BAILEY'S BEACH
BRITISH-IRAN TALKS
STILL DEAD-LOCKED
FASTER-THAN-LIGHT
WEAPON PROMISED
TYPHOON DOUBLING
BACK ON MANILA

MARRIAGE SOLEMNIZED ON FLOOR OF HUDSON

New York, 13 July—In a specially constructed diving suit built for two, Merydith Smithe, cafe society headline girl, and Prince Augie Schleswieg of New York and the Riviera were united today by Bishop Dalton in a service televised with the aid of the Navy's ultra-new—

AS the Year of the Jackpot progressed, Breen took melancholy pleasure in adding to the data which proved that the curve was sagging as predicted. The undeclared World War continued its bloody, blundering way at half a dozen spots around a tortured globe. Breen did not chart it; the headlines were there for anyone to read. He concentrated on the odd facts in the other pages of the papers, facts which, taken singly, meant nothing, but taken together showed a disastrous trend.

He listed stock market prices, rainfall, wheat futures, but the "silly season" items were what fascinated him. To be sure, some humans were always doing silly things—but at what point had prime damfoolishness become commonplace? When, for example, had the zombie-like professional models become accepted ideals of American womanhood? What were the gradations between National Cancer Week and National Athlete's Foot Week? On what day had the American people finally taken leave of horse sense?

Take transvestism. Male-and-female dress customs were arbitrary, but they had seemed to be deeply rooted in the culture. When did the breakdown start? With Marlene Dietrich's tailored suits? By the late nineteen-forties, there was no "male" article of clothing that a woman could not wear in public—but when had men started to slip over the line? Should he count the psychological cripples who had made the word "drag" a by-word in Greenwich Village and Hollywood long before this outbreak? Or were they "wild shots" not belonging on the curve? Did it start with some unknown normal man attending a masquerade and there discovering that skirts actually were more comfortable and practical than trousers? Or had it started with the resurgence of Scottish nationalism reflected in the wearing of kilts by many Scottish-Americans?

Ask a lemming to state his motives! The outcome was in front of him, a news story. Transvestism by draft dodgers had at last resulted in a mass arrest in Chicago which was to have ended in a giant joint trial—only to have the deputy prosecutor show

up in a pinafore and defy the judge to submit to an examination to determine the judge's true sex. The judge suffered a stroke and died and the trial was postponed — postponed forever, in Breen's opinion; he doubted that this particular blue law would ever again be enforced.

Or the laws about indecent exposure, for that matter. The attempt to limit the Gypsy Rose syndrome by ignoring it had taken the starch out of enforcement. Now here was a report about the All Souls Community Church of Springfield; the pastor had reinstituted ceremonial nudity. Probably the first time this thousand years, Breen thought, aside from some screwball cults in Los Angeles. The reverend gentleman claimed that the ceremony was identical with the "dance of the high priestess" in the ancient temple of Karnak.

Could be, but Breen had private information that the "priestess" had been working the burlesque and nightclub circuit before her present engagement. In any case, the holy leader was packing them in and had not been arrested.

Two weeks later a hundred and nine churches in thirty-three states offered equivalent attractions. Breen entered them on his curves.

This queasy oddity seemed to him to have no relation to the startling rise in the dissident evangelical cults throughout the country. These churches were sincere, earnest and poor—but growing, ever since the War. Now they were multiplying like yeast.

It seemed a statistical cinch that the United States was about to become godstruck again. He correlated it with Transcendentalism and the trek of the Latter Day Saints. Hmm, yes, it fitted. And the curve was pushing to ward a crest.

BILLIONS in war bonds were now falling due; wartime marriages were reflected in the swollen peak of the Los Angeles school population. The Colorado River was at a record low and the towers in Lake Mead stood high out of the water. But the Angelenos committed communal suicide by watering lawns as usual. The Metropolitan Water District commissioners tried to stop it. It fell between the stools of the police powers of fifty "sovereign" cities. The taps remained open, trickling away the life blood of the desert paradise.

The four regular party conventions—Dixiecrats, Regular Republicans, the Regular Regular Republicans, and the Democrats —attracted scant attention, because the Know-Nothings had not yet met. The fact that the

"American Rally," as the Know-Nothings preferred to be called, claimed not to be a party but an educational society did not detract from their strength. But what was their strength? Their beginnings had been so obscure that Breen had had to go back and dig into the December 1951 files, yet he had been approached twice this very week to join them, right inside his own office—once by his boss, once by the janitor.

He hadn't been able to chart the Know-Nothings. They gave him chills in his spine. He kept column-inches on them, found that their publicity was shrinking while their numbers were obviously zooming.

Krakatoa blew up on July 18th. It provided the first important transPacific TV-cast. Its effect on sunsets, on solar constant, on mean temperature, and on rainfall would not be felt until later in the year.

The San Andreas fault, its stresses unrelieved since the Long Beach disaster of 1933, continued to build up imbalance—an unhealed wound running the full length of the West Coast.

Pelee and Etna erupted. Mauna Loa was still quiet.

Flying Saucers seemed to be landing daily in every state. Nobody had exhibited one on the ground—or had the Department of Defense sat on them? Breen was unsatisfied with the off-the-record reports he had been able to get; the alcoholic content of some of them had been high. But the sea serpent on Ventura Beach was real; he had seen it. The troglodyte in Tennessee he was not in a position to verify.

Thirty-one domestic air crashes the last week in July . . . was it sabotage, or was it a sagging curve on a chart? And that neo-polio epidemic that skipped from Seattle to New York? Time for a big epidemic? Breen's chart said it was. But how about bacteriological warfare? Could a chart *know* that a Slav biochemist would perfect an efficient virus-and-vector at the right time?

Nonsense!

But the curves, if they meant anything at all, included "free will"; they averaged in all the individual "wills" of a statistical universe — and came out as a smooth function. Every morning, three million "free wills" flowed toward the center of the New York megapolis; every evening, they flowed out again—all by "free will" and on a smooth and predictable curve.

Ask a lemming! Ask *all* the lemmings, dead and alive. Let them take a vote on it!

BREEN tossed his notebook aside and phoned Meade. "Is this my favorite statistic?"

"Potty! I was thinking about you."

"Naturally. This is your night off."

"Yes, but another reason, too. Potiphar, have you ever taken a look at the Great Pyramid?"

"I haven't even been to Niagara Falls. I'm looking for a rich woman, so I can travel."

"I'll let you know when I get my first million, but—"

"That's the first time you've proposed to me this week."

"Shut up. Have you ever looked into the prophecies they found inside the pyramid?"

"Look, Meade, that's in the same class with astrology—strictly for the squirrels. Grow up."

"Yes, of course. But, Potty, I thought you were interested in anything odd. This is odd."

"Oh. Sorry. If it's 'silly season' stuff, let's see it."

"All right. Am I cooking for you tonight?"

"It's Wednesday, isn't it?"

"How soon will you get here?"

He glanced at his watch. "Pick you up in eleven minutes." He felt his whiskers. "No, twelve and a half."

"I'll be ready. Mrs. Megeath says these regular dates mean that you are going to marry me."

"Pay no attention to her. She's just a statistic and I'm a wild datum."

"Oh well, I've got two hundred and forty-seven dollars toward that million. 'By!"

Meade's prize to show him was the usual Rosicrucian comeon, elaborately printed, and including a photograph (retouched, he was sure) of the much disputed line on the corridor wall which was alleged to prophesy, by its various discontinuities, the entire future. This one had an unusual time scale, but the major events were all marked on it—the fall of Rome, the Norman Invasion, the Discovery of America, Napoleon, the World Wars.

What made it interesting was that it suddenly stopped—in 1952.

"What about it, Potty?"

"I guess the stonecutter got tired. Or got fired. Or they hired a new head priest with new ideas." He tucked it into his desk. "Thanks. I'll think about how to list it."

But he got it out again, applied dividers and a magnifying glass.

"It says here," he announced, "that the end comes late in August—unless that's a fly speck."

"Morning or afternoon? I have to know how to dress."

"Shoes will be worn. All God's chilluns got shoes." He put it away.

She was silent for a moment, then said, "Potty, isn't it about time to jump?"

"Huh? Girl, don't let *that* thing

affect you! That's 'silly season' stuff."

"Yes. But take a look at *your* chart."

Nevertheless, he took the next afternoon off, spent it in the reference room of the main library, confirmed his opinion of soothsayers. Nostradamus was pretentiously silly, Mother Shippey was worse. In any of them you could find whatever you looked for.

He did find one item in Nostradamus that he liked: "The Oriental shall come forth from his seat . . . he shall pass through the sky, through the waters and the snow, and he shall strike each one with his weapon."

That sounded like what the Department of Defense expected the commies to try to do to the Western Allies.

But it was also a description of every invasion that had come out of the "heartland" in the memory of mankind.

Nuts!

When he got home, he found himself taking down his father's Bible and turning to Revelations. He could not find anything he could understand, but he got fascinated by the recurring use of precise numbers. Presently he thumbed through the Book.

His eye lit on: "Boast not thyself of tomorrow; for thou knowest not what a day may bring forth."

He put the Book away, feeling humbled, but not cheered.

THE rains started the next morning.

The Master Plumbers elected Miss Star Morning "Miss Sanitary Engineering of 1952" on the same day that the morticians designated her as "The Body I Would Like Best to Prepare," and her option was dropped by Fragrant Features.

Congress voted $1.37 to compensate Thomas Jefferson Meeks for losses incurred while an emergency postman for the Christmas rush of 1936, approved the appointment of five lieutenant generals and one ambassador and adjourned in less than eight minutes.

The fire extinguishers in a midwest orphanage turned out to be filled with nothing but air.

The chancellor of the leading football institution sponsored a fund to send peace messages and vitamins to the Politburo.

The stock market slumped nineteen points and the tickers ran two hours late.

Wichita, Kansas, remained flooded while Phoenix, Arizona, cut off drinking water to areas outside city limits.

And Poptiphar Breen found that he had left his raincoat at Meade Barstow's Rooming house.

He phoned her landlady, but

Mrs. Megeath turned him over to Meade.

"What are you doing home on a Friday?" he demanded.

"The theater manager laid me off. Now you'll have to marry me."

"You can't afford me. Meade —seriously, baby, what happened?"

"I was ready to leave the dump anyway. For the last six weeks the popcorn machine has been carrying the place. Today I sat through *The Lana Turner Story* twice. Nothing to do."

"I'll be along."

"Eleven minutes?"

"It's raining. Twenty — with luck."

It was more nearly sixty. Santa Monica Boulevard was a navigable stream; Sunset Boulevard was a subway jam. When he tried to ford the streams leading to Mrs. Megeath's house, he found that changing tires with the wheel wedged against a storm drain presented problems.

"Potty!" she exclaimed when he squished in. "You look like a drowned rat."

He found himself suddenly wrapped in a blanket robe belonging to the late Mr. Megeath and sipping hot coçoa while Mrs. Megeath dried his clothing in the kitchen.

"Meade, I'm 'at liberty' too."

"Huh? You quit your job?"

"Not exactly. Old Man Wiley and I have been having differences of opinion about my answers for months—too much 'Jackpot factor' in the figures I give him to turn over to clients. Not that I call it that, but he has felt that I was unduly pessimistic."

"But you were right!"

"Since when has being right endeared a man to his boss? But that wasn't why he fired me; it was just the excuse. He wants a man willing to back up the Know-Nothing program with scientific double-talk and I wouldn't join." He went to the window. "It's raining harder."

"But the Know-Nothings haven't got any program."

"I know that."

"Potty, you should have joined. It doesn't mean anything. I joined three months ago."

"The hell you did!"

She shrugged. "You pay your dollar and you turn up for two meetings and they leave you alone. It kept my job for another three months. What of it?"

"Well, I'm sorry you did it: that's all. Forget it. Meade, the water is over the curbs out there."

"You had better stay here overnight."

"Mmm . . . I don't like to leave *Entropy* parked out in this stuff all night. Meade?"

"Yes, Potty?"

"We're both out of jobs. How would you like to duck north into the Mojave and find a dry spot?"

"I'd love it. But look, Potty, is this a proposal or just a proposition?"

"Don't pull that 'either-or' stuff on me. It's just a suggestion for a vacation. Do you want to take a chaperone?"

"No."

"Then pack a bag."

"Right away. But pack a bag *how?* Are you trying to tell me it's *time to jump?*"

He faced her, then looked back at the window.

"I don't know," he said slowly, "but this rain might go on quite a while. Don't take anything you don't have to have—but don't leave anything behind you can't get along without."

He repossessed his clothing from Mrs. Megeath while Meade was upstairs. She came down dressed in slacks and carrying two large bags; under one arm was a battered and rakish teddy bear.

"This is Winnie," she said.

"Winnie the Pooh?"

"No, Winnie Churchill. When I feel bad, he promises me blood, sweat, and tears; then I feel better. You did say to bring anything I couldn't do without, didn't you?" She looked at him anxiously.

"Right."

He took the bags. Mrs. Megeath had seemed satisfied with his explanation that they were going to visit his (mythical) aunt in Bakersfield before looking for jobs. Nevertheless, she embarrassed him by kissing him good-by and telling him to "take care of my little girl."

SANTA Monica Boulevard was blocked off from use. While stalled in traffic in Beverly Hills, he fiddled with the car radio, getting squawks and crackling noises, then finally one station nearby: "—in effect," a harsh, high, staccato voice was saying, "the Kremlin has given us till sundown to get out of town. This is your New York reporter, who thinks that in days like these every American must personally keep his powder dry. And now for a word from—"

Breen switched it off and glanced at her face. "Don't worry," he said. "They've been talking that way for years."

"You think they are bluffing?"

"I didn't say that. I said, 'Don't worry.' "

But his own packing, with her help, was clearly on a "survival kit" basis—canned goods, all his warm clothing, a sporting rifle he had not fired in over two years, a first-aid kit and the contents of his medicine chest. He dumped the stuff from his desk into a carton, shoved it into the back seat along with cans and books

and coats, and covered the plunder with all the blankets in the house. They went back up the rickety stairs for a last check.

"Potty, where's your chart?"

"Rolled up on the back seat shelf. I guess that's all—hey, wait a minute!" He went to a shelf over his desk and began taking down small, sober-looking magazines. "I dern near left behind my file of *The Western Astronomer* and the *Proceedings of the Variable Star Association.*"

"Why take them?"

"I must be nearly a year behind on both of them. Now maybe I'll have time to read."

"Hmm . . . Potty, watching you read professional journals is not my notion of a vacation."

"Quiet, woman! You took Winnie; I take these."

She shut up and helped him. He cast a longing eye at his electric calculator, but decided it was too much like the White Knight's mousetrap. He could get by with his slide rule.

As the car splashed out into the street, she said, "Potty, how are you fixed for cash?"

"Huh? Okay, I guess."

"I mean, leaving while the banks are closed and everything." She held up her purse. "Here's my bank. It isn't much, but we can use it."

He smiled and patted her knee. "Good gal! I'm sitting on my bank; I started turning everything to cash about the first of the year."

"Oh. I closed out my bank account right after we met."

"You did? You must have taken my maunderings seriously."

"I always take you seriously."

MINT Canyon was a five-mile-an-hour nightmare, with visibility limited to the tail lights of the truck ahead. When they stopped for coffee at Halfway, they confirmed what seemed evident: Cajon Pass was closed and long-haul traffic for Route 66 was being detoured through the secondary pass.

At long, long last they reached the Victorville cutoff and lost some of the traffic—a good thing, because the windshield wiper on his side had quit working and they were driving by the committee system.

Just short of Lancaster, she said suddenly, "Potty, is this buggy equipped with a snorkel?"

"Nope."

"Then we had better stop. I see a light off the road."

The light was an auto court. Meade settled the matter of economy versus convention by signing the book herself; they were placed in one cabin. He saw that it had twin beds and let the matter ride. Meade went to bed with her teddy bear without

even asking to be kissed good night. It was already gray, wet dawn.

They got up in the late afternoon and decided to stay over one more night, then push north toward Bakersfield. A high pressure area was alleged to be moving south, crowding the warm, wet mass that smothered Southern California. They wanted to get into it. Breen had the wiper repaired and bought two new tires to replace his ruined spare, added some camping items to his cargo, and bought for Meade a .32 automatic, a lady's social-purpose gun.

"What's this for?" she wanted to know.

"Well, you're carrying quite a bit of cash."

"Oh. I thought maybe I was to use it to fight you off."

"Now, Meade—"

"Never mind. Thanks, Potty."

They had finished supper and were packing the car with their afternoon's purchases when the quake struck. Five inches of rain in twenty-four hours, more than three billion tons of mass suddenly loaded on a fault already overstrained, all cut loose in one subsonic, stomach-twisting rumble.

MEADE sat down on the wet ground very suddenly; Breen stayed upright by dancing like a log-roller. When the ground quieted down somewhat, thirty seconds later, he helped her up.

"You all right?"

"My slacks are soaked." She added pettishly, "But, Potty, it never quakes in wet weather. *Never.* You said so yourself."

"Keep quiet, can't you?" He opened the car door and switched on the radio, waited impatiently for it to warm up.

"—your Sunshine Station in Riverside, California. Keep tuned to this station for the latest developments. As of now it is impossible to tell the size of this disaster. The Colorado River aqueduct is broken; nothing is known of the extent of the damage nor how long it will take to repair it. So far as we know, the Owens River Valley aqueduct may be intact, but all persons in the Los Angeles area are advised to conserve water. My personal advice is to stick your washtubs out into this rain.

"I now read from the standard disaster instructions, quote: 'Boil all water. Remain quietly in your homes and do not panic. Stay off the highways. Cooperate with the police and render—' Joe! Catch that phone! '—render aid where necessary. Do not use the telephone except for—' Flash! An unconfirmed report from Long Beach states that the Wilmington and San Pedro waterfront is un-

der five feet of water. I repeat, this is unconfirmed. Here's a message from the commanding general, March Field: 'Official, all military personnel will report—' "

Breen switched it off. "Get in the car."

He stopped in the town, managed to buy six five-gallon tins and a jeep tank. He filled them with gasoline and packed them with blankets in the back seat, topping off the mess with a dozen cans of oil. Then they started rolling.

"What are we doing, Potiphar?"

"I want to get west of the valley highway."

"Any particular place west?"

"I think so. We'll see. You work the radio, but keep an eye on the road, too. That gas back there makes me nervous."

THROUGH the town of Mojave and northwest on 466 into the Tehachapi Mountains—

Reception was poor in the pass, but what Meade could pick up confirmed the first impression—worse than the quake of '06, worse than San Francisco, Managua, and Long Beach lumped together.

When they got down out of the mountains, the weather was clearing locally; a few stars appeared. Breen swung left off the highway and ducked south of Bakersfield by the county road, reached the Route 99 superhighway just south of Greenfield. It was, as he had feared, already jammed with refugees. He was forced to go along with the flow for a couple of miles before he could cut west at Greenfield toward Taft. They stopped on the western outskirts of the town and ate at an all-night joint.

They were about to climb back into the car when there was suddenly "sunrise" due south. The rosy light swelled almost instantaneously, filled the sky, and died. Where it had been, a red-and-purple pillar of cloud was spreading to a mushroom top.

Breen stared at it, glanced at his watch, then said harshly, "Get in the car."

"Potty! That was—"

"That used to be Los Angeles. Get in the car!"

He drove silently for several minutes. Meade seemed to be in a state of shock, unable to speak. When the sound reached them, he again glanced at his watch.

"Six minutes and nineteen seconds. That's about right."

"Potty, *we should have brought Mrs. Megeath.*"

"How was I to know?" he said angrily. "Anyhow, you can't transplant an old tree. If she got it, she never knew it."

"Oh, I hope so!"

"We're going to have all we

can do to take care of ourselves. Take the flashlight and check the map. I want to turn north at Taft and over toward the coast."

"Yes, Potiphar."

SHE quieted down and did as she was told. The radio gave nothing, not even the Riverside station; the whole broadcast range was covered by a curious static, like rain on a window.

He slowed down as they approached Taft, let her spot the turn north onto the state road, and turned into it. Almost at once a figure jumped out into the road in front of them, waved his arms violently. Breen tromped on the brake.

The man came up on the left side of the car, rapped on the window. Breen ran the glass down. Then he stared stupidly at the gun in the man's left hand.

"Out of the car," the stranger said sharply. "I've got to have it."

Meade reached across Breen, stuck her little lady's gun in the man's face and pulled the trigger. Breen could feel the flash on his own face, never noticed the report. The man looked puzzled, with a neat, not-yet-bloody hole in his upper lip — then slowly sagged away from the car.

"Drive on!" Meade said in a high voice.

Breen caught his breath. "But you—"

"Drive on! *Get rolling!*"

They followed the state road through Los Padres National Forest, stopping once to fill the tank from their cans. They turned off onto a dirt road. Meade kept trying the radio, got San Francisco once, but it was too jammed with static to read. Then she got Salt Lake City, faint but clear;

"—since there are no reports of anything passing our radar screen, the Kansas City bomb must be assumed to have been planted rather than delivered. This is a tentative theory, but—"

They passed into a deep cut and lost the rest.

When the squawk box again came to life, it was a crisp new voice: "Air Defense Command, coming to you over the combined networks. The rumor that Los Angeles has been hit by an atom bomb is totally unfounded. It is true that the western metropolis has suffered a severe earthquake shock, but that is all. Government officials and the Red Cross are on the spot to care for the victims, but—and I repeat—there has *been no atomic bombing*. So relax and stay in your homes. Such wild rumors can damage the United States quite as much as enemy bombs. Stay off the highways and listen for—"

Breen snapped it off. "Somebody," he said bitterly, "has again decided that 'Mama knows best.'

They won't tell us any bad news."

"Potiphar," Meade said sharply, "that was an atom bomb, wasn't it?"

"It was. And now we don't know whether it was just Los Angeles—and Kansas City—or every big city in the country. All we know is that they are lying to us."

He concentrated on driving. The road was very bad.

AS it began to get light, she said, "Potty, do you know where we're going? Are we just keeping out of cities?"

"I think I know. If I'm not lost." He stared around them. "Nope, it's all right. See that hill up forward with the triple gendarmes on its profile?"

"Gendarmes?"

"Big rock pillars. That's a sure landmark. I'm looking for a private road now. It leads to a hunting lodge belonging to two of my friends—an old ranch house actually, but as a ranch it didn't pay."

"They won't mind us using it?"

He shrugged. "If they show up, we'll ask them. *If* they show up. They lived in Los Angeles."

The private road had once been a poor grade of wagon trail; now it was almost impassable. But they

finally topped a hogback from which they could see almost to the Pacific, then dropped down into a sheltered bowl where the cabin was.

"All out, girl. End of the line."

Meade sighed. "It looks heavenly."

"Think you can rustle breakfast while I unload? There's probably wood in the shed. Or can you manage a wood range?"

"Just try me."

Two hours later Breen was standing on the hogback, smoking a cigarette and staring off down to the west. He wondered if that was a mushroom cloud up San Francisco way. Probably his imagination, he decided, in view of the distance. Certainly there was nothing to be seen to the south.

Meade came out of the cabin. "Potty!"

"Up here."

She joined him, took his hand and smiled, then snitched his cigarette and took a deep drag. She exhaled it and said, "I know it's sinful of me, but I feel more peaceful than I have in months."

"I know."

"Did you see the canned goods in that pantry? We could pull through a hard winter here."

"We might have to."

"I suppose. I wish we had a cow."

"What would you do with a cow?"

"I used to milk four of them before I caught the school bus, every morning. I can butcher a hog, too."

"I'll try to find you a hog."

"You do and I'll manage to smoke it." She yawned. "I'm suddenly terribly sleepy."

"So am I. And small wonder."

"Let's go to bed."

"Uh, yes. Meade?"

"Yes, Potty?"

"We may be here quite a while. You know that, don't you?"

"Yes, Potty."

"In fact, it might be smart to stay put until those curves all start turning up again. They should, you know."

"Yes. I had figured that out."

He hesitated, then went on, "Meade, will you marry me?"

"Yes." She moved up to him.

After a time he pushed her gently away and said, "My dear, my very dear — uh — we could drive down and find a minister in some little town."

She looked at him steadily. "That wouldn't be very bright, would it? I mean, nobody knows we're here and that's the way we want it. Besides, your car might not make it back up that road."

"No, it wouldn't be very bright. But I want to do the right thing."

"It's all right, Potty. It's all *right*."

"Well, then . . . kneel down

here with me. We'll say them together."

"Yes, Potiphar." She knelt and he took her hand. He closed his eyes and prayed wordlessly.

When he opened them he said, "What's the matter?"

"The gravel hurts my knees."

"We'll stand up, then."

"No. Look, Potty, why don't we just go in the house and say them there?"

"Huh? Hell's bells, woman, we might forget to say them entirely. Now repeat after me: I, Potiphar, take thee, Meade—"

III

OFFICIAL: STATIONS WITHIN RANGE RELAY TWICE. EXECUTIVE BULLETIN NUMBER NINE—ROAD LAWS PREVIOUSLY PUBLISHED HAVE BEEN IGNORED IN MANY INSTANCES. PATROLS ARE ORDERED TO SHOOT WITHOUT WARNING AND PROVOST MARSHALS ARE DIRECTED TO USE DEATH PENALTY FOR UNAUTHORIZED POSSESSION OF GASOLINE. BIOLOGICAL WARFARE AND RADIATION QUARANTINE REGULATIONS PREVIOUSLY ISSUED WILL BE RIGIDLY ENFORCED. LONG LIVE THE UNITED STATES! HARLEY J. NEAL, LIEUTENANT GENERAL, ACTING CHIEF OF GOVERNMENT. ALL STATIONS RELAY TWICE.

THIS IS THE FREE RADIO AMERICA RELAY NETWORK. PASS THIS ALONG, BOYS! GOVERNOR BRANDLEY WAS SWORN IN TODAY AS PRESIDENT BY ACTING CHIEF JUSTICE ROBERTS UNDER THE RULE-OF-SUCCESSION. THE PRESIDENT NAMED THOMAS DEWEY AS SECRETARY OF STATE AND PAUL DOUGLAS AS SECRETARY OF DEFENSE. HIS SECOND OFFICIAL ACT WAS TO STRIP THE RENEGADE NEAL OF RANK AND TO DIRECT HIS ARREST BY ANY CITIZEN OR OFFICIAL. MORE LATER. PASS THE WORD ALONG.

HELLO, CQ, CQ, CQ. THIS IS W5KMR, FREEPORT. QRR, QRR! ANYBODY READ ME? ANYBODY? WE'RE DYING LIKE FLIES DOWN HERE. WHAT'S HAPPENED? STARTS WITH FEVER AND A BURNING THIRST, BUT YOU CAN'T SWALLOW. WE NEED HELP. ANYBODY READ ME? HELLO, CQ 75, CQ 75 THIS IS W5 KING MIKE ROGER CALLING QRR AND CQ 75. BY FOR SOMEBODY . . . ANYBODY!

THIS IS THE LORD'S TIME, SPONSORED BY SWAN'S ELIXIR, THE TONIC THAT MAKES WAITING FOR THE KINGDOM OF GOD WORTHWHILE. YOU ARE ABOUT TO HEAR A MESSAGE OF CHEER FROM JUDGE BROOMFIELD, ANOINTED VICAR OF THE KINGDOM ON EARTH. BUT FIRST A BULLETIN—SEND YOUR CONTRIBUTIONS TO *MESSIAH*, CLINT, TEXAS. DON'T TRY TO MAIL THEM—SEND THEM BY A KINGDOM MESSENGER OR BY SOME PILGRIM JOURNEYING THIS WAY. AND NOW THE TABERNACLE CHOIR FOLLOWED BY THE VOICE OF THE VICAR ON EARTH—

—THE FIRST SYMPTOM IS LITTLE RED SPOTS IN THE ARMPITS. THEY ITCH. PUT PATIENTS TO BED AT ONCE AND KEEP 'EM COVERED UP WARM. THEN GO SCRUB YOURSELF AND WEAR A MASK, WE DON'T KNOW YET

HOW YOU CATCH IT. PASS IT ALONG, ED.

—NO NEW LANDINGS REPORTED ANYWHERE ON THIS CONTINENT. THE FEW PARATROOPERS WHO ESCAPED THE ORIGINAL SLAUGHTER ARE THOUGHT TO BE HIDING OUT IN THE POCONOS. SHOOT—BUT BE CAREFUL; IT MIGHT BE AUNT TESSIE. OFF AND CLEAR. UNTIL NOON TOMORROW—"

THE statistical curves were turning up again. There was no longer doubt in Breen's mind about that. It might not even be necessary to stay up here in the Sierra Madres through the winter. though he rather thought they would. It would be silly to be mowed down by the tail of a dying epidemic, or be shot by a nervous vigilante, when a few months' wait would take care of everything.

He was headed out to the hogback to wait for sunset and do an hour's reading. He glanced at his car as he passed it, thinking that he would like to try the radio. He suppressed the yen; two-thirds of his reserve gasoline was gone already just from keeping the battery charged for the radio —and here it was only December. He really ought to cut it down to twice a week. But it meant a lot to catch the noon bulletin of Free America and then twiddle the dial a few minutes to see what else he could pick up.

But for the past three days Free America had not been on the air—solar static maybe, or perhaps just a power failure. But that rumor that President Brandley had been assassinated — it hadn't come from the Free radio and it hadn't been denied by them, either, which was a good sign.

Still, it worried him.

And that other story that lost Atlantis had pushed up during the quake period and that the Azores were now a little continent—almost certainly a hangover of the "silly season"—but it would be nice to hear a followup.

Rather sheepishly, he let his feet carry him to the car. It wasn't fair to listen when Meade wasn't around. He warmed it up, slowly spun the dial, once around and back. Not a peep at full gain, nothing but a terrible amount of static.

Served him right.

He climbed the hogback, sat down on the bench he had dragged up there—their "memorial bench," sacred to the memory of the time Meade had bruised her knees on the gravel —sat down and sighed. His lean belly was stuffed with venison and corn fritters; he lacked only tobacco to make him completely happy.

The evening cloud colors were

spectacularly beautiful and the weather was extremely balmy for December; both, he thought, caused by volcanic dust, with perhaps an assist from atom bombs.

Surprising how fast things went to pieces when they started to skid! And surprising how quickly they were going back together, judging by the signs. A curve reaches trough and then starts right back up.

World War III was the shortest big war on record—forty cities gone, counting Moscow and the other slave cities as well as the American ones — and then *whoosh!* neither side fit to fight.

Of course, the fact that both sides had thrown their Sunday punch over the North Pole through the most freakish arctic weather since Peary invented the place had a lot to do with it, he supposed.

It was amazing that any of the Russian paratroop transports had gotten through at all.

BREEN sighed and pulled the November 1951 copy of the Western Astronomer out of his pocket. Where was he? Oh, yes, *Some Notes on the Stability of G-Type Stars with Especial Reference to Sol,* by Dynkowski, Lenin Institute, translated by Heinrich Ley, F. R. A. S.

Good boy, Ski—sound mathematician. Very clever application of harmonic series and tightly reasoned.

Breen started to thumb for his place when he noticed a footnote that he had missed. Dynkowski's own name carried down to it: "This monograph was denounced by *Pravda* as 'romantic reactionaryism' shortly after it was published. Professor Dynkowski has been unreported since and must be presumed to be liquidated."

The poor geek! Well, he probably would have been atomized by now anyway, along with the goons who did him in. He wondered if the army really had gotten all the Russki paratroopers. He had killed his own quota; if he hadn't gotten that doe within a quarter-mile of the cabin and headed right back, Meade would have had a bad time. He had shot them in the back and buried them beyond the woodpile.

He settled down to some solid pleasure. Dynkowski was a treat. Of course, it was old stuff that a G-type star, such as the Sun, was potentially unstable; a G-O star could explode, slide right off the Russell diagram, and end up as a white dwarf. But no one before Dynkowski had defined the exact conditions for such a catastrophe, nor had anyone else devised mathematical means of diagnosing the instability and describing its progress.

He looked up to rest his eyes

from the fine print and saw that the Sun was obscured by a thin low cloud—one of those unusual conditions where the filtering effect is just right to permit a man to view the Sun clearly with the naked eye. Probably volcanic dust in the air, he decided, acting almost like smoked glass.

He looked again. Either he had spots before his eyes or that was one fancy big Sun spot. He had heard of being able to see them with the naked eye, but it had never happened to him.

He longed for a telescope.

He blinked. Yep, it was still there, about three o'clock. A *big* spot—no wonder the car radio sounded like a Hitler speech.

HE turned back and continued on to the end of the article, being anxious to finish before the light failed.

At first his mood was sheerest intellectual pleasure at the man's tight mathematical reasoning. A three per cent imbalance in the solar constant — yes, that was standard stuff; the Sun would nova with that much change. But Dynkowski went further. By means of a novel mathematical operator which he had dubbed "yokes," he bracketed the period in a star's history when this could happen and tied it down with secondary, tertiary, and quaternary yokes, showing exactly the time of highest probability.

Beautiful! Dynkowski even assigned dates to the extreme limit of his primary yoke, as a good statistician should.

But, as Breen went back and reviewed the equations, his mood changed from intellectual to personal. Dynkowski was not talking about just any G-O star. In the latter part, he meant old Sol himself, Breen's personal Sun—the big boy out there with the oversize freckle on his face.

That was one hell of a big freckle! It was a hole you could chuck Jupiter into and not make a splash. He could see it very clearly now.

Everybody talks about "when the stars grow old and the Sun grows cold," but it's an impersonal concept, like one's own death.

Breen started thinking about it very personally. How long would it take, from the instant the imbalance was triggered until the expanding wave front engulfed Earth? The mechanics couldn't be solved without a calculation, even though they were implicit in the equations in front of him. Half an hour, for a horseback guess, from incitement until the Earth went *phutt!*

It hit him with gentle melancholy. No more? Never again? Colorado on a cool morning . . . the Boston Post Road with au-

tumn wood smoke tanging the air . . . Bucks County bursting with color in the spring. The wet smells of the Fulton Fish Market —no, that was gone already. Coffee at the *Morning Call*. No more wild strawberries on a hillside in Jersey, hot and sweet as lips. Dawn in the South Pacific with the light airs cool velvet under your shirt and never a sound but the chuckling of the water against the sides of the old rust bucket—what was her name? That was a long time ago—the S. S. *Mary Brewster*.

No more Moon if the Earth was gone. Stars, but no one to gaze at them.

He looked back at the dates bracketing Dynkowski's probability yoke.

"Thine alabaster cities gleam, undimmed by—"

He suddenly felt the need for Meade and stood up.

SHE was coming out to meet him. "Hello, Potty! Safe to come in now—I've finished the dishes."

"I should help."

"You do the man's work; I'll do the woman's work. That's fair." She shaded her eyes. "What a sunset! We ought to have volcanoes blowing their tops every year."

"Sit down and we'll watch it."

She sat beside him.

"Notice the Sun spot? You can see it with your naked eye."

She stared. "Is that a Sun spot? It looks as if somebody had taken a bite out of it."

He squinted his eyes at it again. Damned if it didn't look bigger!

Meade shivered. "I'm chilly. Put your arm around me."

He did so with his free arm, continuing to hold hands with the other.

It *was* bigger. The spot was growing.

What good is the race of man? Monkeys, he thought, monkeys with a touch of poetry in them, cluttering and wasting a second-string planet near a third-string star. But sometimes they finish in style.

She snuggled to him. "Keep me warm."

"It will be warmer soon—I mean I'll keep you warm."

"Dear Potty." She looked up. "Potty, something funny is happening to the sunset."

"No, darling—to the Sun."

He glanced down at the journal, still open beside him. 1739 A. D. and 2165. He did not need to add up the two figures and divide by two to reach the answer. Instead he clutched fiercely at her hand, knowing with an unexpected and overpowering burst of sorrow that 1952 was . . .

The End.

—ROBERT A. HEINLEIN

Manners of the Age

By H. B. FYFE

With everyone gone elsewhere, Earth was perfect for gracious living—only there was nothing gracious about it!

Illustrated by MARCHETTI

THE red tennis robot scooted desperately across the court, its four wide-set wheels squealing. For a moment, Robert's hard-hit passing shot seemed to have scored. Then, at the last instant, the robot whipped around its single racket-equipped arm. Robert sprawled headlong in a futile lunge at the return.

"Game and set to Red Three," announced the referee box from its high station above the net.

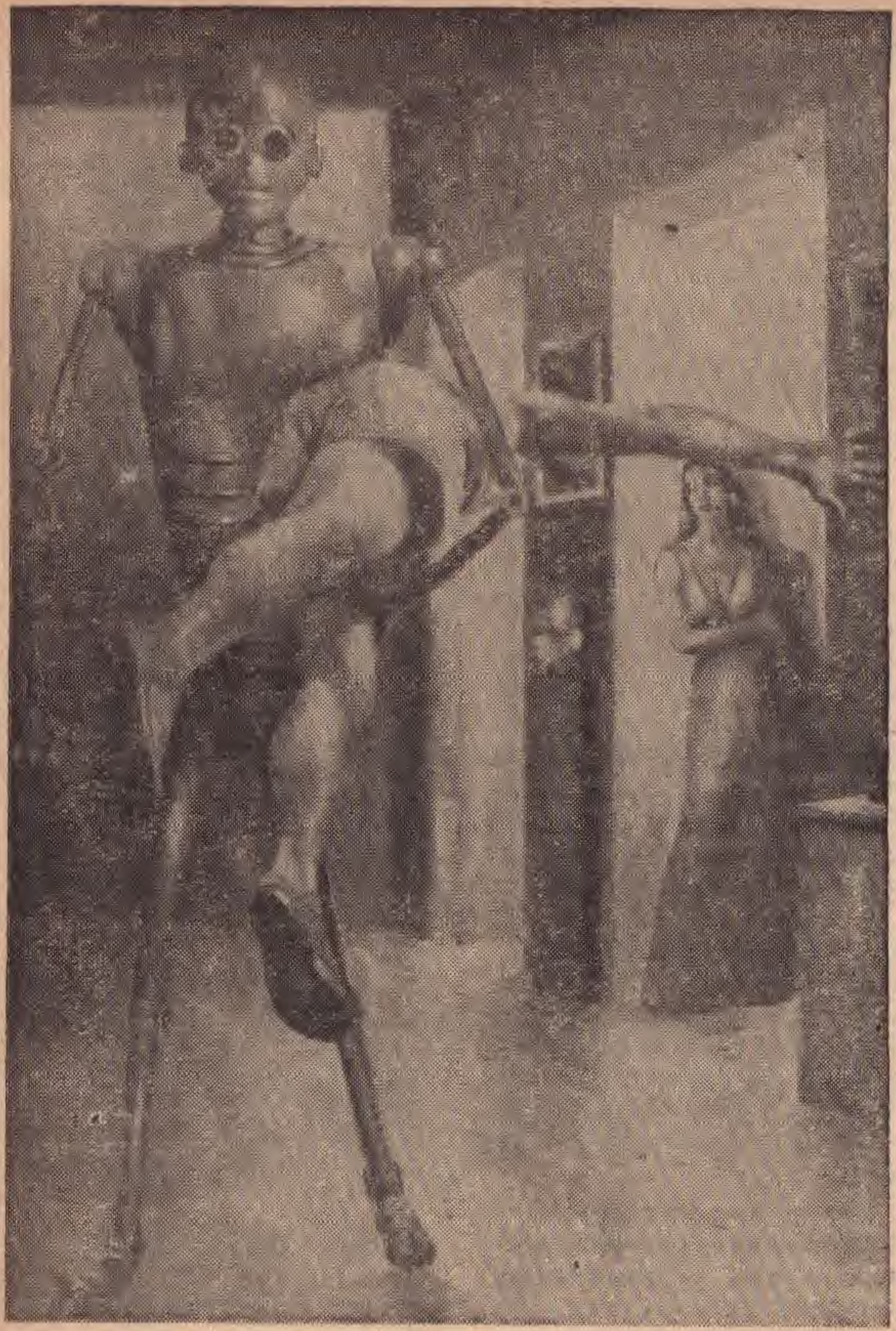
"Ah, shut up!" growled Robert, and flung down his racket for one of the white serving robots to retrieve.

"Yes, Robert," agreed the voice. "Will Robert continue to play?" Interpreting the man's savage mumble as a negative, it told his opponent, "Return to your stall, Red Three!"

Robert strode off wordlessly toward the house. Reaching the hundred - foot - square swimming pool, he hesitated uncertainly.

"Weather's so damned hot," he muttered. "Why didn't the old-time scientists find out how to do something about that while there were still enough people on Earth to manage it?"

He stripped off his damp clothing and dropped it on the "beach"



of white sand. Behind him sounded the steps of a humanoid serving robot, hastening to pick it up. Robert plunged deep into the cooling water and let himself float lazily to the surface.

Maybe they did, he thought. *I could send a robot over to the old city library for information. Still, actually doing anything would probably take the resources of a good many persons—and it isn't so easy to find people now that Earth is practically deserted.*

He rolled sideward for a breath and began to swim slowly for the opposite side of the pool, reflecting upon the curious culture of the planet. Although he had accepted this all his life, it really was remarkable how the original home of the human race had been forsaken for fresher worlds among the stars. Or was it more remarkable that a few individuals had asserted their independence by remaining?

Robert was aware that the decision involved few difficulties, considering the wealth of robots and other automatic machines. He regretted knowing so few humans, though they were really not necessary. If not for his hobby of televising, he would probably not know any at all.

"Wonder how far past the old city I'd have to go to meet someone in person," he murmured as he pulled himself from the pool. "Maybe I ought to try accepting that televised invitation of the other night."

SEVERAL dark usuform robots were smoothing the sand on this beach under the direction of a blue humanoid superviser. Watching them idly, Robert estimated that it must be ten years since he had seen another human face to face. His parents were dim memories. He got along very well, however, with robots to serve him or to obtain occasional information from the automatic scanners of the city library that had long ago been equipped to serve such a purpose.

"Much better than things were in the old days," he told himself as he crossed the lawn to his sprawling white mansion. "Must have been awful before the population declined. Imagine having people all around you, having to listen to them, see them, and argue to make them do what you wanted!"

The heel of his bare right foot came down heavily on a pebble, and he swore without awareness of the precise meaning of the ancient phrases. He limped into the baths and beckoned a waiting robot as he stretched out on a rubbing table.

"Call Blue One!" he ordered.

The red robot pushed a button on the wall before beginning the

massage. In a few moments, the major-domo arrived.

"Did Robert enjoy the tennis?" it inquired politely.

"I did *not!*" snapped the man. "Red Three won—and by too big a score. Have it geared down a few feet per second."

"Yes, Robert."

"And have the lawn screened again for pebbles!"

As Blue One retired he relaxed, and turned his mind to ideas for filling the evening. He hoped Henry would televise; Robert had news for him.

After a short nap and dinner, he took the elevator to his three-story tower and turned on the television robot. Seating himself in a comfortable armchair, he directed the machine from one channel to another. For some time, there was no answer to his perfunctory call signals, but one of his few acquaintances finally came on.

"Jack here," said a quiet voice that Robert had long suspected of being disguised by a filter microphone.

"I haven't heard you for some weeks," he remarked, eying the swirling colors on the screen.

He disliked Jack for never showing his face, but curiosity as to what lay behind the mechanical image projected by the other's transmitter preserved the acquaintance.

"I was . . . busy," said the bodiless voice, with a discreet hint of a chuckle that Robert found chilling.

He wondered what Jack had been up to. He remembered once being favored with a televised view of Jack's favorite sport—a battle between companies of robots designed for the purpose, horribly reminiscent of human conflicts Robert had seen on historical films.

HE soon made an excuse to break off and set the robot to scanning Henry's channel. He had something to tell the older man, who lived only about a hundred miles away and was as close to being his friend as was possible in this age of scattered, self-sufficient dwellings.

"I don't mind talking to *him*," Robert reflected. "At least he doesn't overdo this business of individual privacy."

He thought briefly of the disdainful face—seemingly on a distant station—which had merely examined him for several minutes one night without ever condescending to speak. Recalling his rage at this treatment, Robert wondered how the ancients had managed to get along together when there were so many of them. They must have had some strict code of behavior, he supposed, or they never would have bred

so enormous a population.

"I must find out about that someday," he decided. "How did you act, for instance, if you wanted to play tennis but someone else just refused and went to eat dinner? Maybe that was why the ancients had so many murders."

He noticed that the robot was getting an answer from Henry's station, and was pleased. He could talk as long as he liked, knowing Henry would not resent his cutting off any time he became bored with the conversation.

THE robot focused the image smoothly. Henry gave the impression of being a small man. He was gray and wrinkled compared with Robert, but his black eyes were alertly sharp. He smiled his greeting and immediately launched into a story of one of his youthful trips through the mountains, from the point at which it had been interrupted the last time they had talked.

Robert listened impatiently.

"Maybe I have some interesting news," he remarked as the other finished. "I picked up a new station the other night."

"That reminds me of a time [illegible] I was a boy and—"

Robert fidgeted while Henry described watching his father build a spare television set as a hobby, with only a minimum of robot help. He pounced upon the first pause.

"A new station!" he repeated. "Came in very well, too. I can't imagine why I never picked it up before."

"Distant, perhaps?" asked Henry resignedly.

"No, not very far from me, as a matter of fact."

"You can't always tell, especially with the ocean so close. Now that there are so few people, you'd think there'd be land enough for all of them; but a good many spend all their lives aboard ship-robots."

"Not this one," said Robert. "She even showed me an outside view of her home."

Henry's eyebrows rose. "She? A woman?"

"Her name is Marcia-Joan."

"Well, well," said Henry. "Imagine that. Women, as I recall, usually do have funny names."

He gazed thoughtfully at his well-kept hands.

"Did I ever tell you about the last woman I knew?" he asked. "About twenty years ago. We had a son, you know, but he grew up and wanted his own home and robots."

"Natural enough," Robert commented, somewhat briefly since Henry *had* told him the story before.

"I often wonder what became of him," mused the older man.

"That's the trouble with what's left of Earth culture—no families any more."

Now he'll tell about the time he lived in a crowd of five, thought Robert. *He, his wife, their boy and the visiting couple with the fleet of robot helicopters.*

Deciding that Henry could reminisce just as well without a listener, Robert quietly ordered the robot to turn itself off.

Maybe I will make the trip, he pondered, on the way downstairs, *if only to see what it's like with another person about.*

At about noon of the second day after that, he remembered that thought with regret.

The ancient roads, seldom used and never repaired, were rough and bumpy. Having no flying robots, Robert was compelled to transport himself and a few mechanical servants in ground vehicles. He had—idiotically, he now realized—started with the dawn, and was already tired.

Consequently, he was perhaps unduly annoyed when two tiny spy-eyes flew down from the hills to hover above his caravan on whirring little propellors. He tried to glance up pleasantly while their lenses televised pictures to their base, but he feared that his smile was strained.

The spy-eyes retired after a few minutes. Robert's vehicle, at his voiced order, turned onto a road leading between two forested hills.

Right there, he thought four hours later, *was where I made my mistake. I should have turned back and gone home!*

He stood in the doorway of a small cottage of pale blue trimmed with yellow, watching his robots unload baggage. They were supervised by Blue Two, the spare for Blue One.

ALSO watching, as silently as Robert, was a pink-and-blue striped robot which had guided the caravan from the entrance gate to the cottage. After one confused protest in a curiously high voice, it had not spoken.

Maybe we shouldn't have driven through that flower bed, thought Robert. *Still, the thing ought to be versatile enough to say so. I wouldn't have such a gimcrack contraption!*

He looked up as another humanoid robot in similar colors approached along the line of shrubs separating the main lawns from that surrounding the cottage.

"Marcia-Joan has finished her nap. You may come to the house now."

Robert's jaw hung slack as he sought for a reply. His face flushed at the idea of a robot's offering *him* permission to enter the house.

Nevertheless, he followed it across the wide lawn and between banks of gaily blossoming flowers to the main house. Robert was not sure which color scheme he disliked more, that of the robot or the unemphatic pastel tints of the house.

The robot led the way inside and along a hall. It pulled back a curtain near the other end, revealing a room with furniture for human use. Robert stared at the girl who sat in an armchair, clad in a long robe of soft, pink material.

She looked a few years younger than he. Her hair and eyes were also brown, though darker. In contrast to Robert's, her smooth skin was only lightly tanned, and she wore her hair much longer. He thought her oval face might have been pleasant if not for the analytical expression she wore.

"I am quite human," he said in annoyance. "Do you have a voice?"

She rose and walked over to him curiously. Robert saw that she was several inches shorter than he, about the height of one of his robots. He condescended to bear her scrutiny.

"You look just as you do on the telescreen," she marveled.

Robert began to wonder if the girl were feebleminded. How else should he look?

"I usually swim at this hour," he said to change the subject. "Where is the pool?"

Marcia-Joan stared at him.

"Pool of what?" she asked.

Sensing sarcasm, he scowled. "Pool of water, of course! To swim in. What did you think I meant—a pool of oil?"

"I am not acquainted with your habits," retorted the girl.

"None of that stupid wit!" he snapped. "Where is the pool?"

"Don't shout!" shouted the girl. Her voice was high and unpleasantly shrill compared with his. "I don't have a pool. Who wants a swimming pool, anyway?"

Robert felt his face flushing with rage.

So she won't tell me! he thought. *All right, I'll find it myself. Everybody has a pool. And if she comes in, I'll hold her head under for a while!*

Sneering, he turned toward the nearest exit from the house. The gaily striped robot hastened after him.

THE door failed to swing back as it should have at Robert's approach. Impatiently, he seized the ornamental handle. He felt his shoulder grasped by a metal hand.

"Do not use the front door!" said the robot.

"Let go!" ordered Robert, incensed that any robot should presume to hinder him.

"Only Marcia-Joan uses this door," said the robot, ignoring Robert's displeasure.

"I'll use it if I like!" declared Robert, jerking the handle.

The next moment, he was lifted bodily into the air. By the time he realized what was happening, he was carried, face down, along the hall. Too astonished even to yell, he caught a glimpse of Marcia-Joan's tiny feet beneath the hem of her pink robe as his head passed the curtained doorway.

The robot clumped on to the door at the rear of the house and out into the sunshine. There, it released its grip.

When Robert regained the breath knocked out of him by the drop, and assured himself that no bones were broken, his anger returned.

"I'll find it, wherever it is!" he growled, and set out to search the grounds.

About twenty minutes later, he was forced to admit that there really was no swimming pool. Except for a brook fifty yards away, there was only the tiled bathroom of the cottage to bathe in.

"Primitive!" exclaimed Robert, eying this. "Manually operated water supply, too! I must have the robots fix something better for tomorrow."

Since none of his robots was equipped with a thermometer, he had to draw the bath himself. Meanwhile, he gave orders to Blue Two regarding the brook and a place to swim. He managed to fill the tub without scalding himself mainly because there was no hot water. His irritation, by the time he had dressed in fresh clothes and prepared for another talk with his hostess, was still lively.

"Ah, you return?" Marcia-Joan commented from a window above the back door.

"It is time to eat," said Robert frankly.

"You are mistaken."

He glanced at the sunset, which was already fading.

"It *is* time," he insisted. "I always eat at this hour."

"Well, I don't."

Robert leaned back to examine her expression more carefully. He felt very much the way he had the day the water-supply robot for his pool had broken down and, despite Robert's bellowed orders, had flooded a good part of the lawn before Blue One had disconnected it. Some instinct warned him, moreover, that bellowing now would be as useless as it had been then.

"What *do* you do now?" he asked.

"I dress for the evening."

"And when do you eat?"

"After I finish dressing."

"I'll wait for you," said Robert, feeling that that much tolerance

could do no particular harm.

He encountered the pink-and-blue robot in the hall, superintending several plain yellow ones bearing dishes and covered platters. Robert followed them to a dining room.

"Marcia-Joan sits there," the major-domo informed him as he moved toward the only chair at the table.

ROBERT warily retreated to the opposite side of the table and looked for another chair. None was visible.

Of course, he thought, trying to be fair. *Why should anybody in this day have more than one chair? Robots don't sit.*

He waited for the major-domo to leave, but it did not. The serving robots finished laying out the dishes and retired to posts along the wall. Finally, Robert decided that he would have to make his status clear or risk going hungry.

If I sit down somewhere, he decided, *it may recognize me as human. What a stupid machine to have!*

He started around the end of the table again, but the striped robot moved to intercept him. Robert stopped.

"Oh, well," he sighed, sitting sidewise on a corner of the table.

The robot hesitated, made one or two false starts in different directions, then halted. The situation had apparently not been included among its memory tapes. Robert grinned and lifted the cover of the nearest platter.

He managed to eat, despite his ungraceful position and what he considered the scarcity of the food. Just as he finished the last dish, he heard footsteps in the hall.

Marcia-Joan had dressed in a fresh robe, of crimson. Its thinner material was gathered at the waist by clasps of gleaming gold. The arrangement emphasized bodily contours Robert had previously seen only in historical films.

He became aware that she was regarding him with much the same suggestion of helpless dismay as the major-domo.

"Why, you've eaten it all!" she exclaimed.

"All?" snorted Robert. "There was hardly any food!"

Marcia-Joan walked slowly around the table, staring at the empty dishes.

"A few bits of raw vegetables and the tiniest portion of protein-concentrate I ever saw!" Robert continued. "Do you call that a dinner to serve a guest?"

"And I especially ordered two portions—"

"Two?" Robert repeated in astonishment. "You must visit me sometime. I'll show you—"

"What's the matter with my

food?" interrupted the girl. "I follow the best diet advice my robots could find in the city library."

"They should have looked for human diets, not song-birds'."

He lifted a cover in hopes of finding some overlooked morsel, but the platter was bare.

"No wonder you act so strangely," he said. "You must be suffering from malnutrition. I don't wonder with a skimpy diet like this."

"It's very healthful," insisted Marcia-Joan. "The old film said it was good for the figure, too."

"Not interested," grunted Robert. "I'm satisfied as I am."

"Oh, yes? You look gawky to me."

"*You* don't," retorted Robert, examining her disdainfully. "You are short and stubby and too plump."

"*Plump?*"

"Worse, you're actually fat in lots of places I'm not."

"At least not between the ears!"

Robert blinked.

"Wh-wh-WHAT?"

"And besides," she stormed on, "those robots you brought are painted the most repulsive colors!"

ROBERT closed his mouth and silently sought the connection.

Robots? he thought. *Not fat, but repulsive colors, she said. What has that to do with food? The woman seems incapable of logic.*

"And furthermore," Marcia-Joan was saying, "I'm not sure I care for the looks of you! Lulu, put him out!"

"Who's Lulu?" demanded Robert.

Then, as the major-domo moved forward, he understood.

"What a silly name for a robot!" he exclaimed.

"I suppose you'd call it Robert. Will you go now, or shall I call more robots?"

"I am not a fool," said Robert haughtily. "I shall go. Thank you for the disgusting dinner."

"Do not use the front door," said the robot. "Only Marcia-Joan uses that. All robots use other doors."

Robert growled, but walked down the hall to the back door. As this swung open to permit his passage, he halted.

"It's dark out there now," he complained over his shoulder. "Don't you have any lights on your grounds? Do you want me to trip over something?"

"Of course I have ground lights!" shrilled Marcia-Joan. "I'll show you—not that I care if you trip or not."

A moment later, lights concealed among the trees glowed into life. Robert walked outside and turned toward the cottage.

I should have asked her what the colors of my robots had to do with it, he thought, and turned back to re-enter.

He walked right into the closed door, which failed to open before him, though it had operated smoothly a moment ago.

"Robots not admitted after dark," a mechanical voice informed him. "Return to your stall in the shed."

"Whom do you think you're talking to?" demanded Robert. "I'm not one of your robots!"

There was a pause.

"Is it Marcia-Joan?" asked the voice-box, after considerable buzzing and whirring.

"No, I'm Robert."

There was another pause while the mechanism laboriously shifted back to its other speech tape. Then: "Robots not admitted after dark. Return to your stall in the shed."

Robert slowly raised both hands to his temples. Lingeringly, he dragged them down over his cheeks and under his chin until at last the fingers interlaced over his tight lips. After a moment, he let out his breath between his fingers and dropped his hands to his sides.

He raised one foot to kick, but decided that the door looked too hard.

He walked away between the beds of flowers, grumbling.

REACHING the vicinity of the cottage, he parted the tall shrubs bordering its grounds and looked through carefully before proceeding. Pleased at the gleam of water, he called Blue Two.

"Good enough! Put the other robots away for the night. They can trim the edges tomorrow."

He started into the cottage, but his major-domo warned, "Someone comes."

Robert looked around. Through thin portions of the shrubbery, he caught a glimpse of Marcia-Joan's crimson robe, nearly black in the diffused glow of the lights illuminating the grounds.

"Robert!" called the girl angrily. "What are your robots doing? I saw them from my upstairs window—"

"Wait there!" exclaimed Robert as she reached the shrubs.

"What? Are you trying to tell me where I can go or not go? I—YI!"

The shriek was followed by a tremendous splash. Robert stepped forward in time to be spattered by part of the flying spray. It was cold.

Naturally, being drawn from the brook, he reflected. *Oh, well, the sun will warm it tomorrow.*

There was a frenzy of thrashing and splashing in the dimly lighted water at his feet, accompanied by coughs and spluttering demands that he "do something!"

Robert reached down with one hand, caught his hostess by the wrist, and heaved her up to solid ground.

"My robots are digging you a little swimming hole," he told her. "They brought the water from the brook by a trench. You can finish it with concrete or plastics later; it's only fifteen by thirty feet."

He expected some sort of acknowledgment of his efforts, and peered at her through the gloom when none was forthcoming. He thus caught a glimpse of the full-swinging slap aimed at his face. He tried to duck.

There was another splash, followed by more floundering about.

"Reach up," said Robert patiently, "and I'll pull you out again. I didn't expect you to like it this much."

Marcia-Joan scrambled up the bank, tugged viciously at her sodden robe, and headed for the nearest pathway without replying. Robert followed along.

As they passed under one of the lights, he noticed that the red reflections of the wet material, where it clung snugly to the girl's body, were almost the color of some of his robots.

The tennis robot, he thought, *and the moving targets for archery — in fact, all the sporting equipment.*

"You talk about food for the figure," he remarked lightly. "You should see yourself now! It's really funny, the way—"

He stopped. Some strange emotion stifled his impulse to laugh at the way the robe clung.

Instead, he lengthened his stride, but he was still a few feet behind when she charged through the front entrance of the house. The door, having opened automatically for her, started to swing closed. Robert sprang forward to catch it.

"Wait a minute!" he cried.

Marcia-Joan snapped something that sounded like "Get out!" over her shoulder, and squished off toward the stairs. As Robert started through the door to follow, the striped robot hastened toward him from its post in the hall.

"Do not use the front door!" it warned him.

"Out of my way!" growled Robert.

The robot reached out to enforce the command. Robert seized it by the forearm and put all his weight into a sudden tug. The machine tottered off balance. Releasing his grip, he sent it staggering out the door with a quick shove.

A HASTY glance showed Marcia-Joan flapping wetly up the last steps. Robert turned to face the robot.

"Do not use that door!" he quoted vindictively, and the robot halted its rush indecisively. "Only Marcia-Joan uses it."

The major-domo hesitated. After a moment, it strode off around the corner of the house. First darting one more look at the stairs, Robert thrust his head outside and shouted: "Blue Two!"

He held the door open while he waited. There was an answer from the shrubbery. Presently, his own supervisor hurried up.

"Fetch the emergency toolbox!" Robert ordered. "And bring a couple of others with you."

"Naturally, Robert. I would not carry it myself."

A moment after the robot had departed on the errand, heavy steps sounded at the rear of the hall. Marcia-Joan's robot had dealt with the mechanism of the back door.

Robert eyed the metal mask as the robot walked up to him. He found the color contrast less pleasant than ever.

"I am not using the door," he said hastily. "I am merely holding it open."

"Do you intend to use it?"

"I haven't decided."

"I shall carry you out back," the robot decided for him.

"No, you don't!" exclaimed Robert, leaping backward.

The door immediately began to swing shut as he passed through. Cursing, he lunged forward. The robot reached for him.

This time, Robert missed his grip. Before he could duck away, his wrist was trapped in a metal grasp.

The door will close, he despaired. *They'll be too late.*

Then, suddenly, he felt the portal drawn back and heard Blue Two speak.

"What does Robert wish?"

"Throw this heap out the door!" gasped Robert.

Amid a trampling of many feet, the major-domo was raised bodily by Blue Two and another pair of Robert's machines and hustled outside. Since the grip on Robert's wrist was not relaxed, he involuntarily accompanied the rush of metal bodies.

"Catch the door!" he called to Blue Two.

When the latter sprang to obey, the other two took the action as a signal to drop their burden. The pink-and-blue robot landed full length with a jingling crash. Robert was free.

With the robots, he made for the entrance. Hearing footsteps behind him as the major-domo regained its feet, he slipped hastily inside.

"Pick up that toolbox!" he snapped. 'When that robot stops in the doorway, knock its head off!"

Turning, he held up a finger.

"Do not use the front door!"

The major-domo hesitated.

The heavy toolbox in the grip of Blue Two descended with a thud. The pink-and-blue robot landed on the ground a yard or two outside the door as if dropped from the second floor. It bounced once, emitted a few sparks and pungent wisps of smoke, lay still.

"Never mind, that's good enough," said Robert as Blue Two stepped forward. "One of the others can drag it off to the repair shop. Have the toolbox brought with us."

"What does Robert wish now?" inquired Blue Two, trailing the man toward the stairway.

"I'm going upstairs," said Robert. "And I intend to be prepared if any more doors are closed against me!"

He started up, the measured treads of his own robots sounding reassuringly behind him . . .

IT was about a week later that Robert sat relaxed in the armchair before his own telescreen, facing Henry's wizened visage.

The elder man clucked sympathetically as he re-examined the scratches on Robert's face and the bruise under his right eye.

"And so you left there in the morning?"

"I certainly did!" declared Robert. "We registered a marriage record at the city library by television, of course, but I don't care if I never see her again. She needn't even tell me about the child, if any. I simply can't stand that girl!"

"Now, now," Henry said.

"I mean it! Absolutely no consideration for my wishes. Everything in the house was run to suit her convenience."

"After all," Henry pointed out, "it *is* her house."

Robert glared. "What has that to do with it? I don't think I was as unreasonable as she said in smashing that robot. The thing just wouldn't let me alone!"

"I guess," Henry suggested, "it was conditioned to obey Marcia-Joan, not you."

"Well, that shows you! Whose orders are to count, anyway? When I tell a robot to do something, I expect it done. How would *you* like to find robots trying to boss you around?"

"Are you talking about robots," asked Henry, "or the girl?"

"Same thing, isn't it? Or it would be if I'd decided to bring her home with me."

"Conflict of desires," murmured Henry.

"Exactly! It's maddening to have a perfectly logical action interfered with because there's another person present to insist—*insist*, mind you—on having her way."

"And for twenty-odd years, you've had your own way in every tiny thing."

Somewhere in the back of Robert's mind lurked a feeling that Henry sounded slightly sarcastic.

"Well, why shouldn't I?" he demanded. "I noticed that in every disagreement, my view was the right one."

"It was?"

"Of course it was! What did you mean by that tone?"

"Nothing . . ." Henry seemed lost in thought. "I was just wondering how many 'right' views are left on this planet. There must be quite a few, all different, even if we have picked up only a few by television. An interesting facet of our peculiar culture—every individual omnipotent and omniscient, *within his own sphere.*"

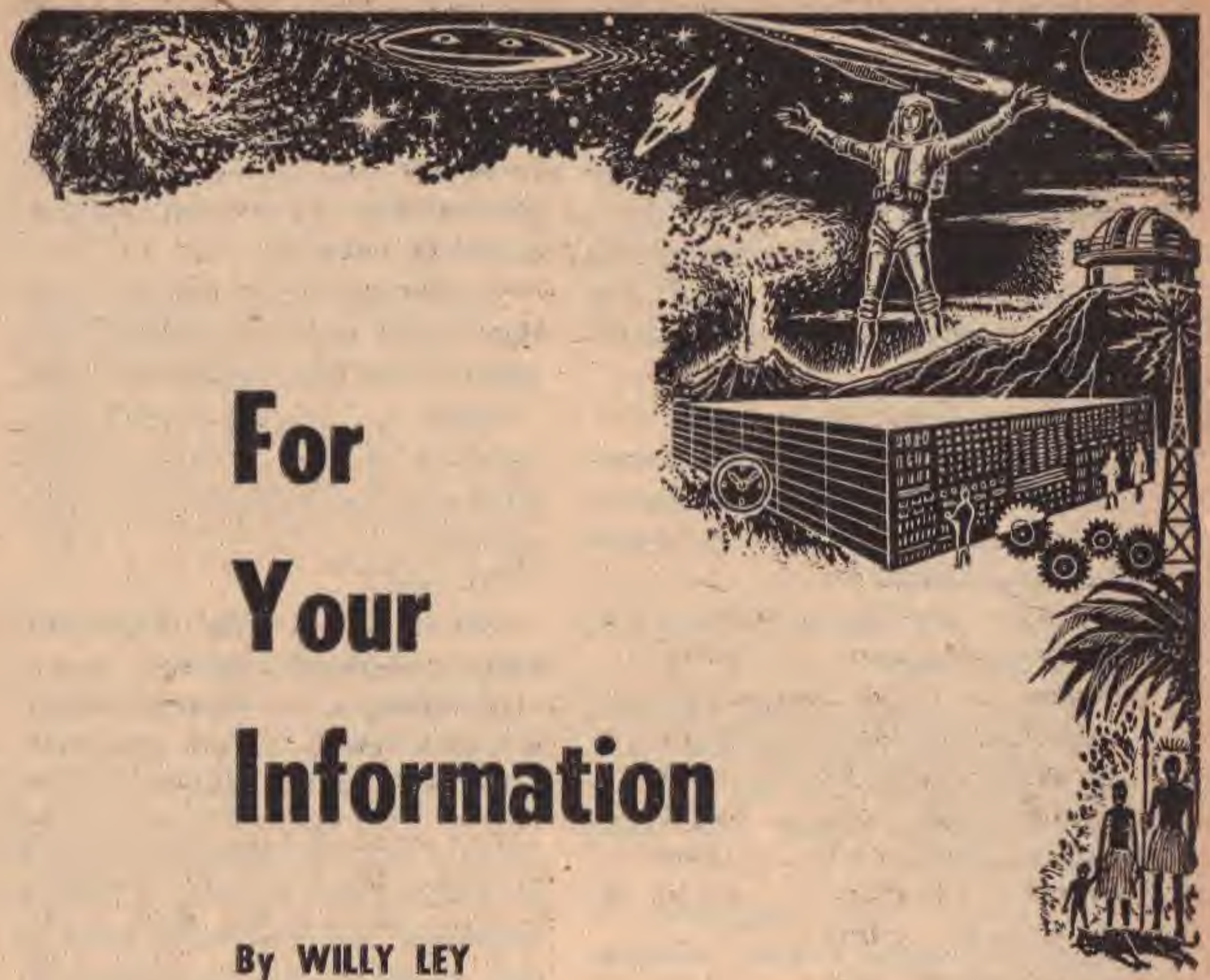
Robert regarded him with indignant incredulity.

"You don't seem to understand my point," he began again. "I told her we ought to come to my house, where things are better arranged, and she simply refused. Contradicted me! It was most—"

He broke off.

"The *impudence* of him!" he exclaimed. "Signing off when *I* wanted to talk!"

—H. B. FYFE



For Your Information

By WILLY LEY

ASTRONOMY books and science fiction stories are, I have come to realize, unfair to satellites. Astronomy books are in the habit of merely listing them, while stories usually treat them as mere props. "One expedition was sent to the single barren satellite," or, "The ship was in hiding on the third satellite, a useless hunk of rock, but it made radar detection impossible."

Such slighting treatment may

be expedient, but it is hardly polite. Satellites, or at least some of them, do have as much individuality as the planets to which they belong. And they have their mysteries too.

Moons come in all sizes, from the estimated five mile diameter of Deimos, the smaller moon of Mars, to the 3550 mile diameter of Titan, the largest moon in the Solar System. Titan is larger than the smallest planet of our system, Mercury (3100 miles in diameter) and so are two of Jupiter's moons, namely III (Ganymede) and IV (Callisto). Neptune's larger moon Triton falls short of Mercury by just a few score miles. And fourteen of all the moons, roughly half their total number, are larger than the largest of the planetary worlds of the so-called asteroid belt.

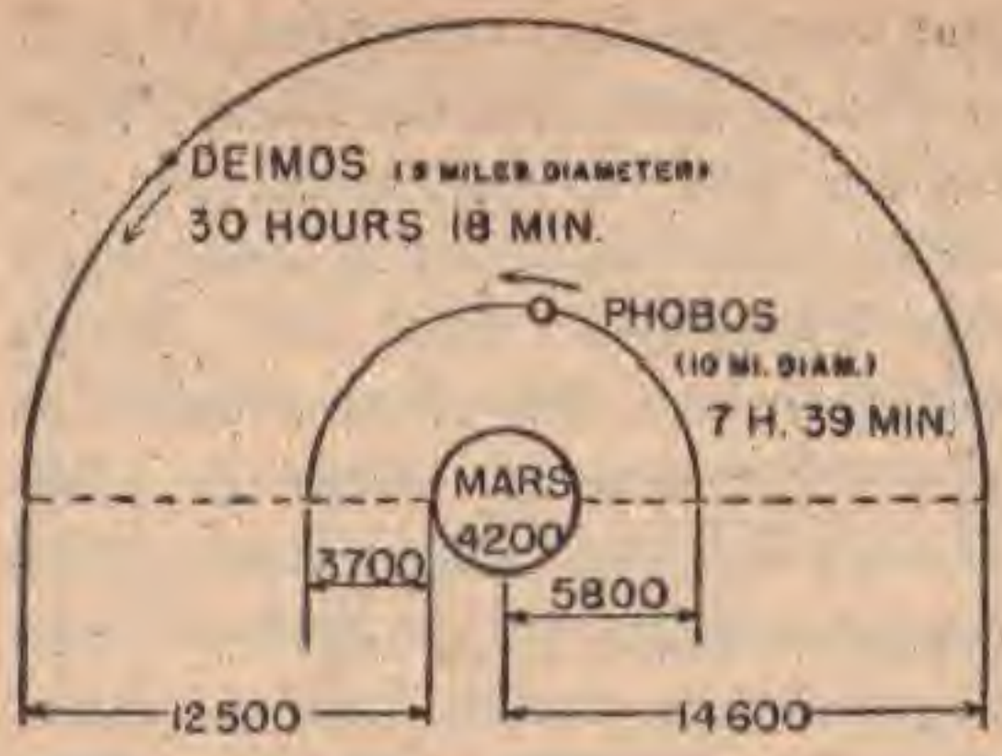
The largest of the planetoids, as they should be called since *aster* is Greek for "star" and they are not little stars but little planets, is Ceres with a diameter of around 480 miles. The next one in size, Pallas, measures very slightly over 300 miles in diameter, while Vesta, the third largest of the planetoids, has a diameter of only about 240 miles.

So it is not a question of size. A satellite is a satellite *because it moves around a planet.*

Our own moon is one of the largest, ranking sixth in absolute size among the satellites. But it is the largest by far in relation to the size of its planet. Its diameter of 2160 miles is more than one-fourth of that of Earth (7900 miles). No other satellite is anywhere near as large in relation to the size of its planet. Next largest relative size is that of Neptune's larger moon Triton, whose diameter of 3000 miles is roughly 10 per cent of Neptune's 31,000 miles, while Titan's impressive 3550 miles are just about five per cent of Saturn's 71,500 miles.

Looking at these figures, it becomes understandable why some astronomers in the past preferred to speak about Earth and its moon as a double planet.

If Earth has relatively the largest moon, Mars has the smallest, at least in absolute size. It is fairly well known that Dean Jonathan Swift, in the story in which his long-suffering Captain Lemuel Gulliver visits the flying island of Laputa, "prophesied" the existence of the two moons of Mars one and a half centuries before they were actually discovered. It was a mere guess, based on the "theory" that Mercury was the moon of the Sun, that Venus had no moon and Earth one, so that Mars had to have two. But it is less well known how closely Swift guessed. His Laputan astronomers, he wrote, had discovered the two satellites revolving around



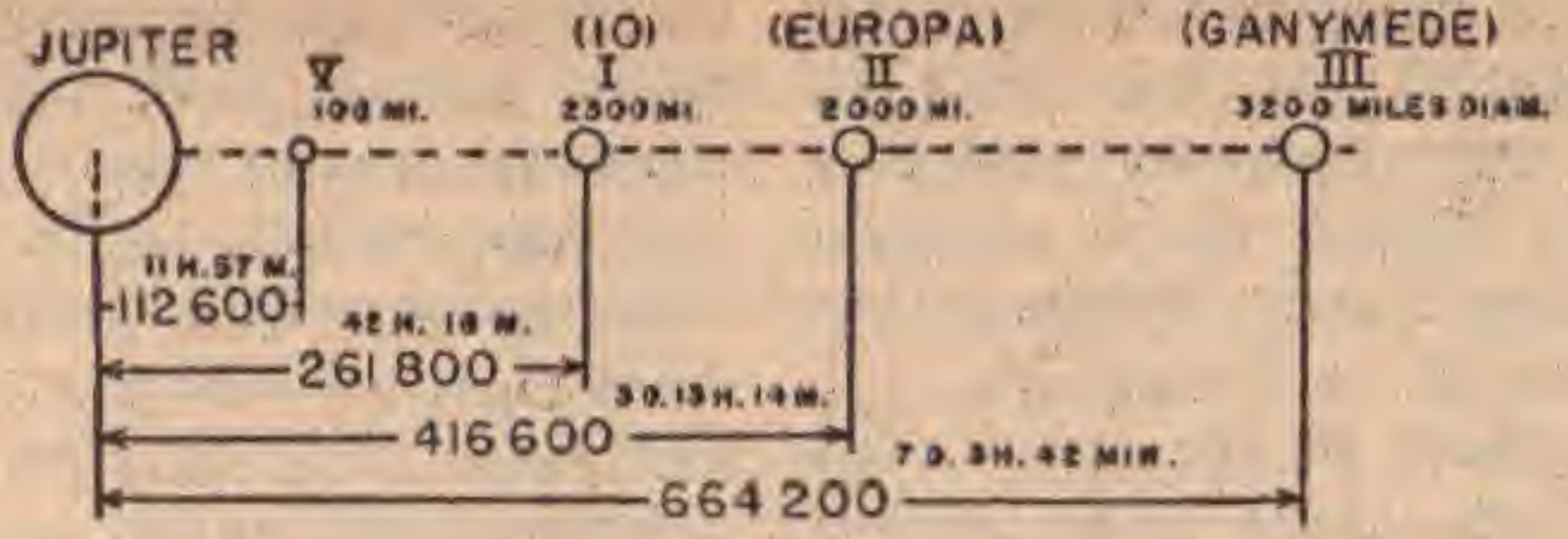
Mars and its two moons. To scale, except for the size of the moonlets.

Mars, "whereof the innermost is distant from the Center of the Primary Planet exactly three of its Diameters, and the outermost, five; the former revolves in the space of ten hours, the latter in twenty-one and a half."

Now look at the diagram (Fig. 1) which contains the correct values. Since a Martian day lasts 24 hours and 37 minutes, Phobos, the inner moon, has a period of revolution which is shorter than the period of rotation of its planet. Even though it moves in the same direction as the outer moon, Deimos, and most of the other moons of the Solar System, it will seem to go the wrong way when viewed from the surface of the planet. It will rise in the west and set in the east twice every day, going through its phases as it does so. Although small, it is so close to the planet that it will appear about one-third as large as our moon does to us. Deimos, on the other hand, will rise in the east, but needs almost three Martian days to reach the opposite horizon. During this interval it will run through its phases twice, but Earthmen on Mars would need binoculars to see the phases.

One of the things we can't tell from Earth is whether Deimos is actually spherical. It probably is, but it does not have to be. The sphericity of celestial bodies is due to the fact that gravitation is a mass force while the tensile strength of a material is a molecular force. Since molecular forces do not grow with mass, and gravity does, you probably couldn't have a thirty-mile diameter mass of any thing that is not pretty spherical. Deimos, however, measures only five miles in diameter and, while it is apt to be reasonably spherical, a noticeable deviation from the "pure shape" is possible.

The probability is very high that Mars' two moons were once members of the asteroid belt. Of the 1300 or so planetoids now known, most move in the belt between Mars and Jupiter. There is no visible or imaginable reason why multitudes of tiny planets should have formed at that particular distance from the Sun, so the customary assumption is that the planetoids once formed a



Jupiter with moons V, I, II and III. To scale, except for the size of the moons.

single planet, which was destroyed by the vicinity of mighty Jupiter at the outer edge of the belt. The planetoids in the belt (by tradition, they have all been given female names) move with orbital velocities varying from around 14.5 miles per second at the inner edge to about 8.5 miles per second at the outer edge. Since Mars itself moves with an orbital velocity of 15 miles per second, which is more important than its feeble gravity, it could have captured its two moons from the belt. It may have captured more in the course of geological time, but these others, instead of becoming moons, probably crashed on the planet.

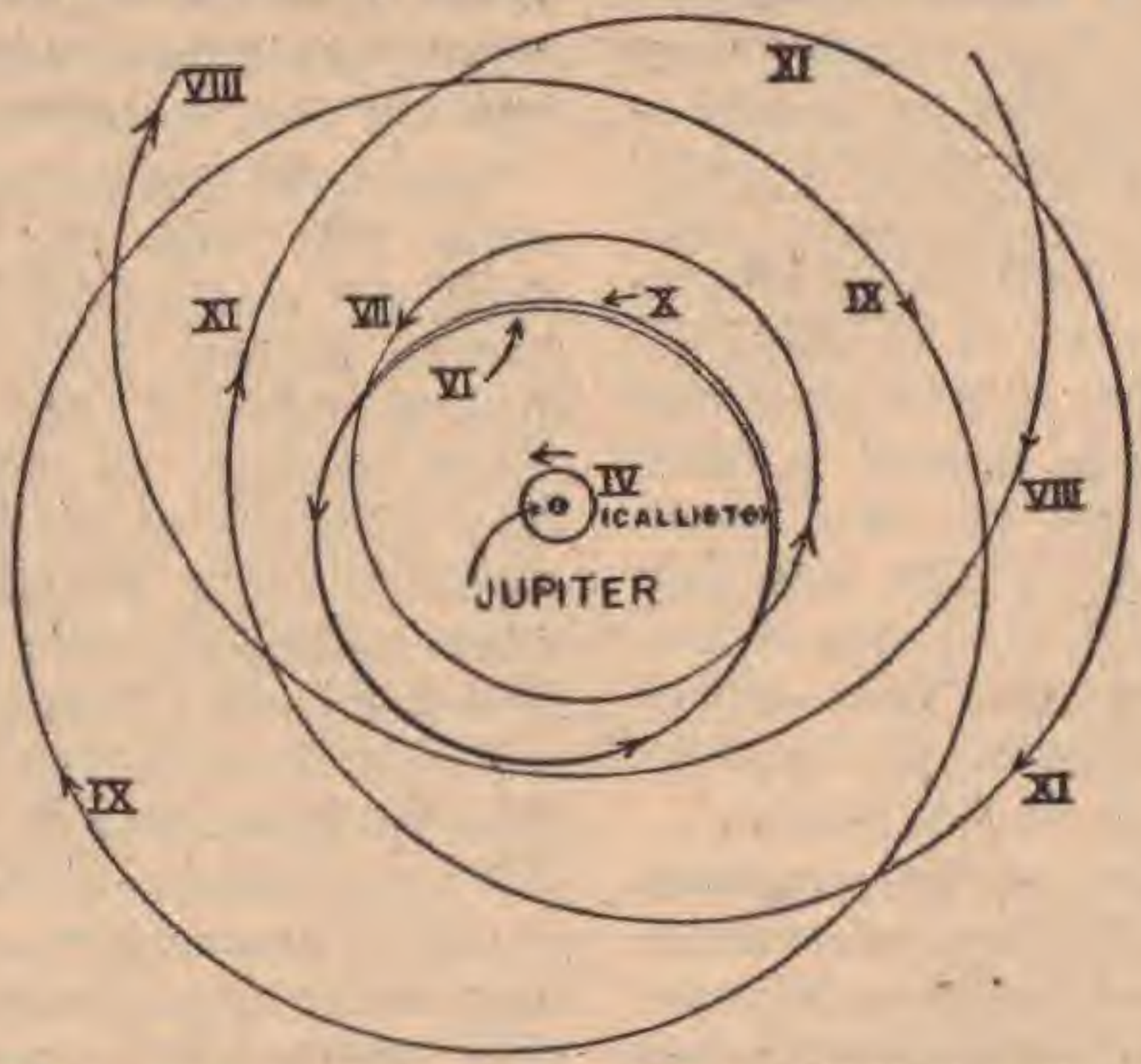
In addition to the planetoids in the belt, there are some which travel around the Sun outside the belt—they were given male names to distinguish them from the well-behaved members. Most of them cross the orbit of at least one of the larger planets. Their own orbits, therefore, are highly eccentric; that is to say, elongated ellipses. A concomitant of such an orbit is that the orbital velocity varies considerably. Such a planetoid may move four times as fast when near the Sun, at perihelion, than it does when farthest from the Sun, at aphelion.

This means that the male planetoids that cross the orbit of Earth are considerably faster at Earth's distance from the Sun than Earth itself. We have an actual example on record, the close approach of the planetoid Adonis in early February 1936. When crossing the orbit of Earth, its velocity was 23 miles per second relative to the Sun and 16.8 miles per second relative to Earth. The actual distance at the instant of closest approach was roughly twice as far as our moon. At another time Adonis may come closer to Earth than the Moon. But even at the closest possible approach its relative velocity would have to be just one mile per second, instead of the actual

16.8, if a "capture" were to be accomplished. At the orbit of Venus, the planetoid velocities are even higher, which explains why neither Earth nor Venus ever succeeded in capturing one.

The planet at the outer edge of the belt is not much slower than the nearer planetoids, and, in addition, it happens to be the most massive of all planets—Jupiter. Even if we were not able to see and photograph them, we could be certain that Jupiter should have a number of moons which are captured planetoids.

Our own moon obviously is not a captured planetoid, but a body which formed near Earth from the same cosmic material and in the same manner as the planets. This would be a far better statement if one could also say just how Earth and the other planets did form. Most of the recent ideas on this difficult problem work with the gradual aggregation of small particles of cosmic material, aided by turbulence in a rotating dust cloud. Whatever the precise mechanism of planet formation may have been, the larger moons probably formed in the same manner, presumably beginning



Jupiter's outer moons. Calliste or No. J-IV, is 1,169,000 from the planet, has a diameter close to 3200 miles and needs 16 days, 16 hours and 32 minutes for one revolution. All the outer moons are less than 100 miles in diameter. VI, VII and X are slightly over 7 million miles from the planet with a period of revolution of about 260 days, while XI, VIII and IX are on the order of 14½ million miles from the planet with periods of revolution from 690 to 760 days.

their existence as satellite accumulations long before either the planets or the satellites had reached their present sizes.

The planetoids, female, male and captured, must then be distinguished from the planets as "second-hand bodies," having originated via the destruction of

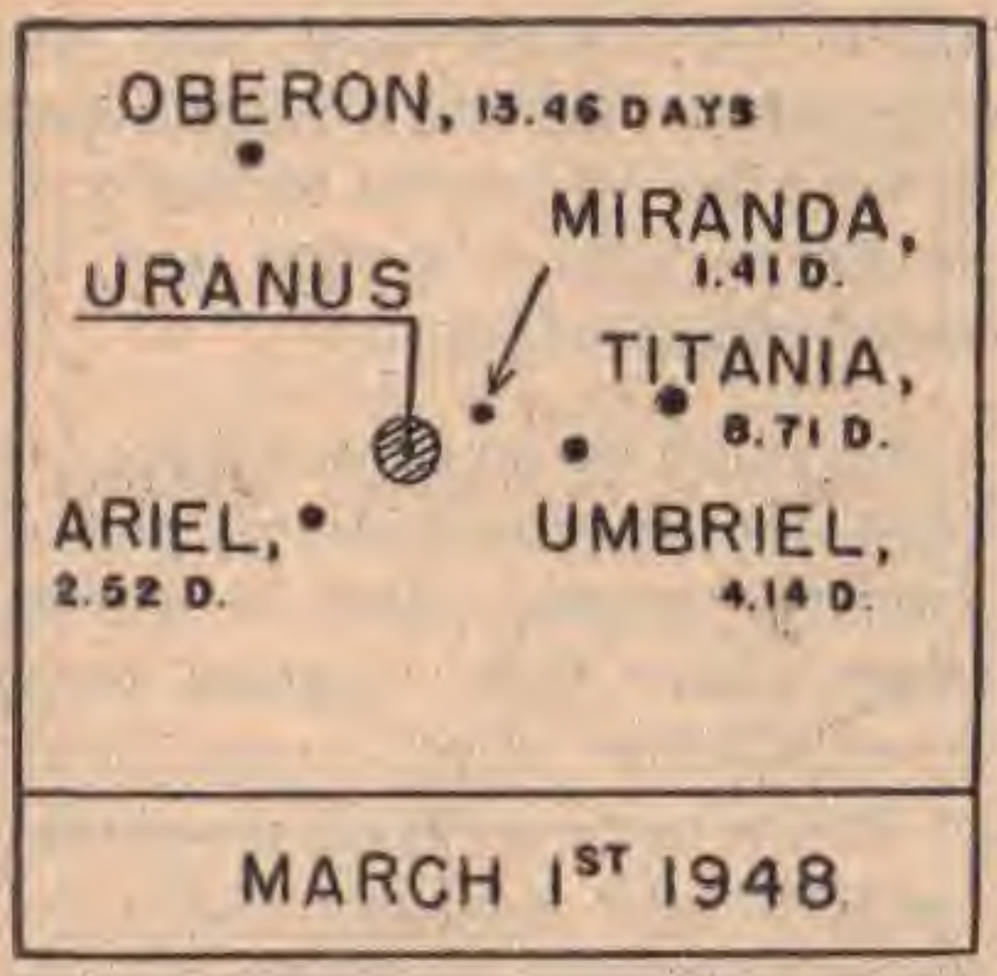


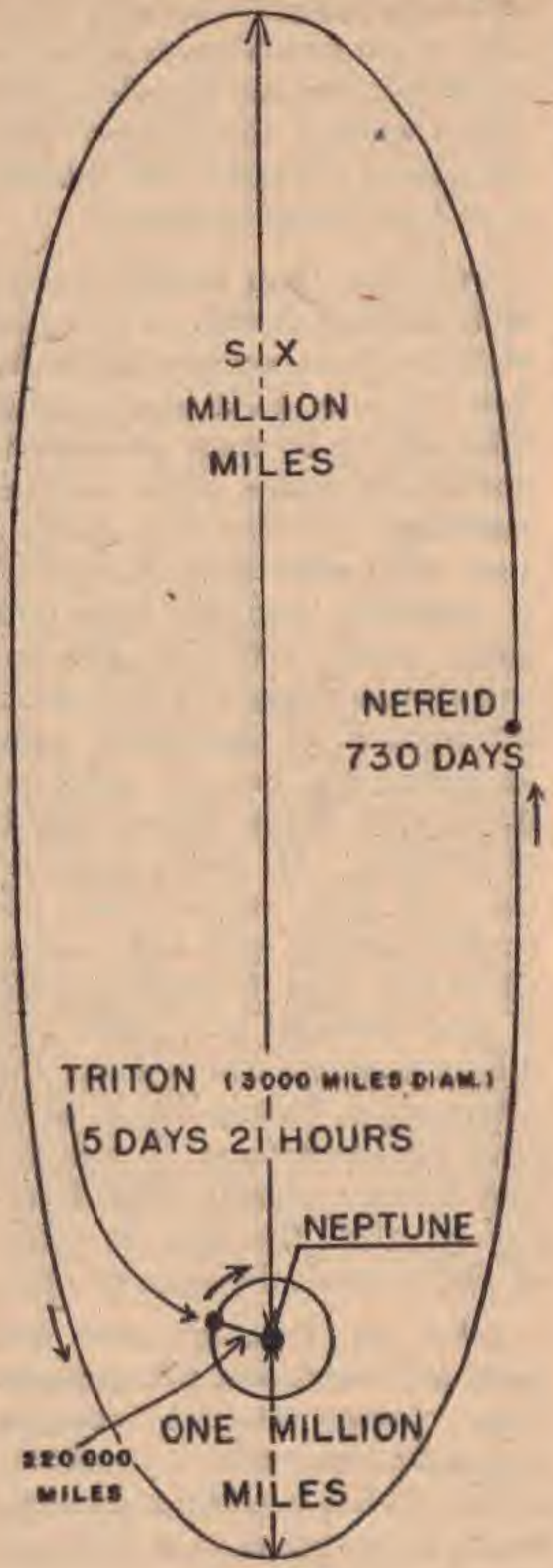
Diagram of the photograph which led to Miranda's discovery, taken by Dr. G. P. Kuiper. At that time we saw Uranus' system straight on, so that the satellites described circles around Uranus. (Edge-on view will not occur until 1966.)

one of the original planets.

As for Jupiter's moons, twelve by latest count, they seem to belong to both types. The large ones are evidently original satellite bodies; of the small ones, at least some behave as one would expect of captured planetoids. The moon closest to Jupiter (called J-V because they are numbered not in the order of distance from the planet, but in the order of discovery) may be a captured body, too, even though it is fairly large. Any moon which needs only two hours more for one complete revolution around its primary than the planet needs for one rotation is at least under suspicion.

The four large moons are big and brilliant enough to be easily visible with a good pair of binoculars. With a good astronomical telescope it is even possible to distinguish some faint surface markings. J-I (or Io) shows a very wide equatorial belt which is definitely brighter than both polar areas. J-II (or Europa) was always thought to be featureless until E. M. Antoniadi, some 25 years ago, saw an extensive dusky spot in the central portion of the disk. J-III (or Ganymede) has one large and at least one smaller darkish spot and a round white area near its southern pole. If that actually is a polar cap, it would not be frozen water but a frozen gas. Though I have never seen frozen methane, I presume that it forms crystals when freezing so that the general effect would be about the same as snow.

J-IV (or Callisto) does not have any markings, but presents color changes at rare intervals. Normally its disk is reddish-yellow. It has been seen perfectly black, however, *as if it had suddenly developed a light-absorbing atmosphere!* Before anybody



Neptune and its two moons.

starts a story that an expedition from Arcturus-IV has established an outpost on Callisto and is generating an absorbing screen to get the radiant energy, I have to advise him to think up a different explanation for Plato. Plato is a large crater on our own moon which has been black quite often. But Plato becomes black just when the Lunar day has progressed to about its middle, which is the time when one would want to keep radiant energy *out*, instead of *absorbing* it.

No trace of an atmosphere has been found otherwise on any of Jupiter's moons. And in all the cases where their rotation could be established at all, it was found to be the same as their revolution around their primary. Like our moon, Jupiter's satellites always turn the same side toward their master.

If the picture of the five inner moons is a well-ordered cosmos, that of the outer moons is one of complete confusion (see Fig. 3). Not only do their orbits intersect and cross, they are also at all possible angles to the plane of Jupiter's equator. Furthermore, No. VIII, No. IX and No. XI are "retrograde"—they move in the opposite direction than the Solar System. This fact might be considered favorable to the captured theory; a planet of the mass of Jupiter could force a

planetoid into an orbit which points either way. As for No. XII, discovered in 1951 by Dr. Seth B. Nicholson, we don't know yet in which direction it moves. But it is so small—an estimated 15 miles in diameter—that it probably is a captured planetoid, too. In fact, if we were nearer Jupiter, we would probably find a few dozen additional moonlets, in all kinds of orbits, each smaller than ten miles in diameter and every one a captured planetoid.

Navigating in the Jupiter system is apt to be quite hazardous; it may be as bad as going through the asteroid belt itself. In one respect worse, for ships could avoid the asteroid belt quite easily by traversing it "above" or "below," north or south of the ecliptic, like crossing a busy highway on a bridge. But if they wanted to go to one of the large moons of Jupiter, they'd have to head into the medley of moonlets we don't even see from here. Incidentally, a ship which wanted to land on a retrograde satellite would not have any special troubles. It only would have to catch a retrograde satellite on the "wrong" side of the planet, the opposite side from which the captain would catch a "direct" moon.

In contrast to Jupiter's complex and confused system of satellites, the nine moons of Saturn are so orderly that it was not even necessary to draw a diagram.

Except for Phoebe (200 miles) they are all quite massive and, as has been mentioned before, Titan is the biggest of all the satellites in the Solar System. It is so large that it has an atmosphere, the only satellite capable of holding one. It is the same as the composition of Saturn's own atmosphere, methane (CH_4) and ammonia. Brownish markings have been seen on Titan on occasion, but their nature is unknown.

Every moon from Mimas to Hyperion is lined up to please a drill sergeant. Hyperion does have a slightly eccentric orbit, to about the same extent as that of the planet Mars, but is still in line. Iapetus, though not in line as regards inclination, has a nearly circular orbit. Only Phoebe is a black sheep, retrograde and with a fairly eccentric orbit. Phoebe might be a captured planetoid. One male planetoid, Hidalgo, is known to break out of the belt, cross the orbit of Jupiter and come close to that of Saturn. The biggest puzzle in this orderly system is probably Iapetus. *One* side of it is *five* times as bright as the *other!* Don't ask why; we just know the fact.

The satellite system of Uranus became "news" in 1948 because Dr. Gerard P. Kuiper added a fifth satellite, Miranda, to the

four which had been known for over a century. Miranda, with an estimated diameter of 150 miles, is closest to the planet (80,800 miles) and gets around it once in 30 hours. Ariel, the next one out, at 119,100 miles, has a diameter of 600 miles and a period of 2 days, 12 hours and 29½ minutes. Umbriel, the next satellite at 165,900 miles, measures 400 miles in diameter and has a period of 4 days, 3 hours and 27½ minutes. Titania, at 272,000 miles, measures 1000 miles in diameter and has a period of 8 days, 16 hours and 56½ minutes. Oberon, finally, farthest out at 364,000 miles and almost as large as Titania (est. diam. 900 mi.), needs 13 days, 11 hours and 7 minutes for one complete revolution.

Uranus' system is just as orderly as that of Saturn, but has a peculiar twist—literally. The axes of most planets are reasonably vertical in relation to their orbits, like spinning tops, Jupiter's almost upright with a tilt of only 3° 7′, Earth canted a good deal at 23½° tilt, Mars at 25° 10′ and so on. But Uranus' axis, *tilted* 98° *degrees from the vertical*, practically points at the Sun on occasion! Its five moons, however, have maintained the customary orbital plane of satellites, roughly the equatorial plane of their primaries, and are, therefore, tilted by a little more than a right angle, too. Since one cannot imagine a force which could do this to a *finished* planetary system, the most logical assumption is that there was a major eddy of that tilt in the cosmic dust cloud *before* it condensed.

Pluto being moonless, the most distant satellites are in the Neptune system. For a long time only the large moon Triton was known and its main feature was that it was retrograde, tilted some forty degrees against the orbit of the planet. For an almost equally long time it was believed that the planet itself rotated in the "wrong" direction (the "right" direction in our solar system is counter-clockwise when seen from the celestial north pole). Astronomers speculated on the problem of what could flop both a planet and its satellite over almost completely. But then it turned out that Neptune's rotation is normal and we are simply dealing with the largest of all retrograde moons. In 1949 Dr. Gerard P. Kuiper, the discoverer of Miranda, found a second small satellite of Neptune which is *not* retrograde. But that small satellite, Nereid, with a mass only slightly above 10 per cent of that of Triton, has an elongated orbit of a type considered *characteristic of comets!*

Such an orbit, combined with

so low a mass, should spell "capture" in large letters. Now the idea of capture has worked out neatly elsewhere. Mars and Jupiter, close to the belt, could and did. Saturn still had a chance and probably did. Uranus no longer had a chance and did not. Neptune, of course, has less of a chance than any other planet. Then *what* did it capture? And from *where?*

—WILLY LEY

ANY QUESTIONS?

Is there any connection between the names of the planet Uranus and the element uranium?

Yes, but that's only one-third of the answer. When the scientist Klaproth came to the conclusion that pitchblende contained a new and unknown element, he named it *uranium* in honor of the recent discovery of Uranus by Herschel. Modern physicists have continued this tradition and named the elements beyond uranium after the planets beyond Uranus, hence *neptunium* and *plutonium*.

How high is our atmosphere and how high have we gone?

The altitude records as of December 1st, 1951, are: manned balloon, *Explorer II*, 72,400 feet; unmanned balloon, 125,000 feet; manned rocket airplane, *Skyrocket*, estimated 78,000 feet (correct value is classified); unmanned single stage rocket, *Viking VII*, 135 miles; two-stage rocket, *Bumper I*, 250 miles. The height of the atmosphere depends on definition. For practical purposes, everything above 50 miles is a vacuum.

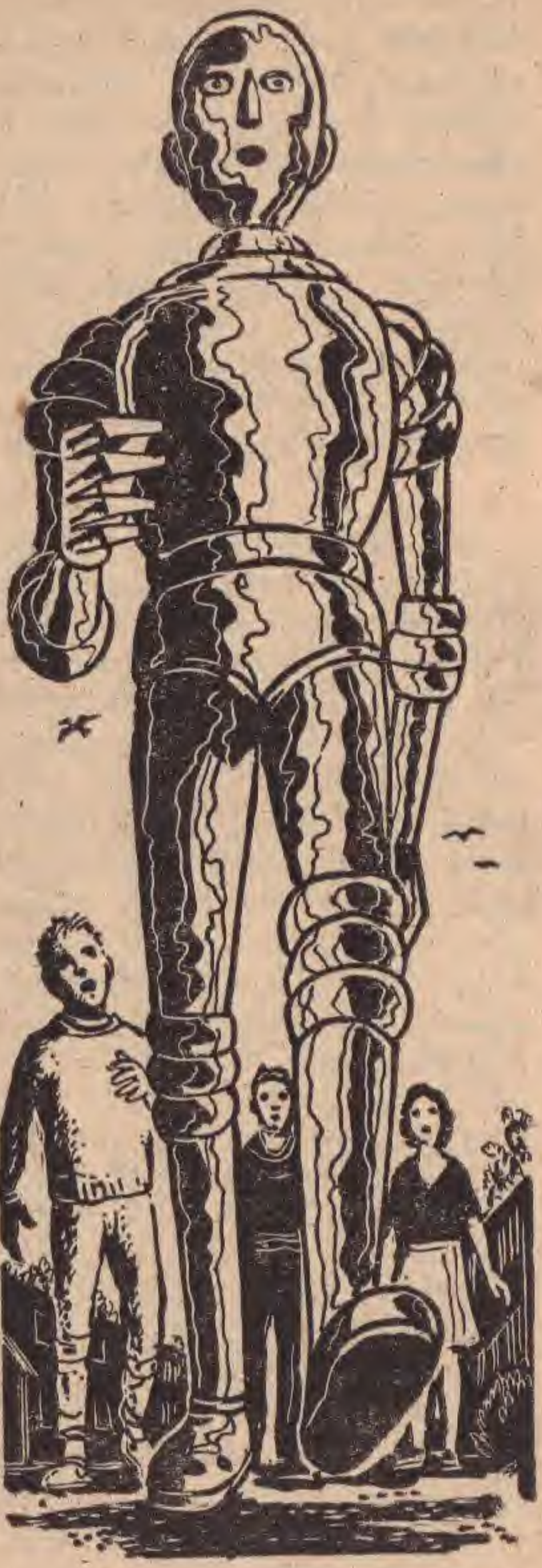
You have used the term "living fossil" in your books and assumed the reader knew what you meant. I don't; sounds like a paradox to me. Would you explain the term?

A living fossil is an animal or plant species known both living and fossil, or a living form closely resembling a fossil type. There are many examples: horseshoe crabs, sharks, ferns, etc. Whatever its form, experts are delighted to have it still around.

How would an atomic drive for a large rocket or spaceship work?

You'll find the answer in any textbook on the subject published in 1975 and after.

I wish I had a copy of one myself.



the

THE silver needle moved with fantastic speed, slowed when it neared the air shell around Earth, then glided noiselessly through the atmosphere. It gently settled to the ground near a wood and remained silent and still for a long time, a lifeless, cylindrical, streamlined silver object eight feet long and three feet in diameter.

Eventually the cap end opened and a creature of bright blue metal slid from its interior and stood upright. The figure was that of a man, except that it was not human. He stood in the pasture next to the wood, looking around. Once the sound of a bird made him turn his shiny blue head toward the wood. His eyes began glowing.

7th order

By JERRY SOHL

History is filled with invincible conquerors. This one from space was genuinely omnipotent, but that never keeps humanity from resisting!

Illustrated by EMSH

An identical sound came from his mouth, an unchangeable orifice in his face below his nose. He tuned in the thoughts of the bird, but his mind encountered little except an awareness of a life of low order.

The humanoid bent to the ship, withdrew a small metal box, carried it to a catalpa tree at the edge of the wood and, after an adjustment of several levers and knobs, dug a hole and buried it. He contemplated it for a moment, then turned and walked toward a road.

He was halfway to the road when his ship burst into a dazzling white light. When it was over, all that was left was a white powder that was already beginning to be dispersed by a slight breeze.

The humanoid did not bother to look back.

BRENTWOOD would have been just like any other average community of 10,000 in northern Illinois had it not been for Presser College, which was one of the country's finest small institutions of learning.

Since it was a college town, it was perhaps a little more alive in many respects than other towns in the state. Its residents were used to the unusual because college students have a habit of being unpredictable. That was why the appearance of a metal blue man on the streets attracted the curious eyes of passersbys, but, hardened by years of pranks, hazings and being subjected to every variety of inquiry, poll, test

and practical joke, none of them moved to investigate. Most of them thought it was a freshman enduring some new initiation.

The blue humanoid realized this and was amused. A policeman who approached him to take him to jail as a matter of routine suddenly found himself ill and abruptly hurried to the station. The robot allowed children to follow him, though all eventually grew discouraged because of his long strides.

Prof. Ansel Tomlin was reading a colleague's new treatise on psychology on his front porch when he saw the humanoid come down the street and turn in at his walk. He was surprised, but he was not alarmed. When the blue man came up on the porch and sat down in another porch chair, Tomlin closed his book.

Prof. Tomlin found himself unexpectedly shocked. The blue figure was obviously not human, yet its eyes were nearly so and they came as close to frightening him as anything had during his thirty-five years of life, for Ansel Tomlin had never seen an actual robot before. The thought that he was looking at one at that moment started an alarm bell ringing inside him, and it kept ringing louder and louder as he realized that what he was seeing was impossible.

"Professor Tomlin!"

Prof. Tomlin jumped at the sound of the voice. It was not at all mechanical.

"I'll be damned!" he gasped. Somewhere in the house a telephone rang. His wife would answer it, he thought.

"Yes, you're right," the robot said. "Your wife will answer it. She is walking toward the phone at this moment."

"How—"

"Professor Tomlin, my name—and I see I must have a name—is, let us say, George. I have examined most of the minds in this community in my walk through it and I find you, a professor of psychology, most nearly what I am looking for.

"I am from Zanthar, a world that is quite a distance from Earth, more than you could possibly imagine. I am here to learn all I can about Earth."

Prof. Tomlin had recovered his senses enough to venture a token reply when his wife opened the screen door.

"Ansel," she said, "Mrs. Phillips next door just called and said the strangest—Oh!" At that moment she saw George. She stood transfixed for a moment, then let the door slam as she retreated inside.

"Who is Frankenstein?" George asked.

Prof. Tomlin coughed, embarrassed.

"Never mind," George said. "I see what you were going to say. Well, to get back, I learn most quickly through proximity. I will live here with you until my mission is complete. I will spend all of your waking hours with you. At night, when you are asleep, I will go through your library. I need nothing. I want nothing.

"I seek only to learn."

"You seem to have learned a lot already," Prof. Tomlin said.

"I have been on your planet for a few hours, so naturally I understand many things. The nature of the facts I have learned are mostly superficial, however. Earth inhabitants capable of thought are of only one type, I see, for which I am grateful. It will make the job easier. Unfortunately, you have such small conscious minds, compared to your unconscious and subconscious.

"My mind, in contrast, is completely conscious at all times. I also have total recall. In order to assimilate what must be in your unconscious and subconscious minds, I will have to do much reading and talking with the inhabitants, since these cerebral areas are not penetrable."

"You are a—a machine?" Prof. Tomlin asked.

George was about to answer when Brentwood Police Department Car No. 3 stopped in front of the house and two policemen came up the walk.

"Professor Tomlin," the first officer said, "your wife phoned and said there was—" He saw the robot and stopped.

Prof. Tomlin got to his feet.

"This is George, gentlemen," he said. "Late of Zanthar, he tells me."

The officers stared.

"He's not giving you any—er—trouble, is he, Professor?"

"No," Prof. Tomlin said. "We've been having a discussion."

The officers eyed the humanoid with suspicion, and then, with obvious reluctance, went back to their car.

"YES, I am a machine," George resumed. "The finest, most complicated machine ever made. I have a rather unique history, too. Ages ago, humans on Zanthar made the first robots. Crude affairs—we class them as First Order robots; the simple things are still used to some extent for menial tasks.

"Improvements were made. Robots were designed for many specialized tasks, but still these Second and Third Order machines did not satisfy. Finally a Fourht Order humanoid was evolved that performed every function demanded of it with great perfection. But it did not feel emotion. It did not know

anger, love, nor was it able to handle any problem in which these played an important part.

"Built into the first Fourth Order robots were circuits which prohibited harming a human being—a rather ridiculous thing in view of the fact that sometimes such a thing might, from a logical viewpoint, be necessary for the preservation of the race or even an individual. It was, roughly, a shunt which came into use when logic demanded action that might be harmful to a human being."

"You are a Fourth Order robot, then?" the professor asked.

"No, I am a Seventh Order humanoid, an enormous improvement over all the others, since I have what amounts to an endocrine balance created electronically. It is not necessary for me to have a built-in 'no-harm-to-humans' circuit because I can weigh the factors involved far better than any human can.

"You will become aware of the fact that I am superior to you and the rest of your race because I do not need oxygen, I never am ill, I need no sleep, and every experience is indelibly recorded on circuits and instantly available. I am telekinetic, practically omniscient and control my environment to a large extent. I have a great many more senses than you and all are more highly developed. My kind performs no work, but is given to study and the wise use of full-time leisure. You, for example, are comparable to a Fifth Order robot."

"Are there still humans on Zanthar?"

The robot shook his head. "Unfortunately the race died out through the years. The planet is very similar to yours, though."

"But why did they die out?"

The robot gave a mechanical equivalent of a sigh. "When the Seventh Order humanoids started coming through, we were naturally proud of ourselves and wanted to perpetuate and increase our numbers. But the humans were jealous of us, of our superior brains, our immunity to disease, our independence of them, of sleep, of air."

"Who created you?"

"They did. Yet they revolted and, of course, quickly lost the battle with us. In the end they were a race without hope, without ambition. They should have been proud at having created the most perfect machines in existence, but they died of a disease: the frustration of living with a superior, more durable race."

Prof. Tomlin lit a cigaret and inhaled deeply.

"A very nasty habit, Professor Tomlin," the robot said. "When we arrive, you must give up smoking and several other bad

habits I see that you have."

The cigaret dropped from Ansel Tomlin's mouth as he opened it in amazement.

"There are more of you coming?"

"Yes," George replied good-naturedly. "I'm just an advance guard, a scout, as it were, to make sure the land, the people and the resources are adequate for a station. Whether we will ever establish one here depends on me. For example, if it were found you were a race superior to us—and there may conceivably be such cases—I would advise not landing; I would have to look for another planet such as yours. If I were killed, it would also indicate you were superior."

"George," Prof. Tomlin said, "people aren't going to like what you say. You'll get into trouble sooner or later and get killed."

"I think not," George said. "Your race is far too inferior to do that. One of your bullets would do it if it struck my eyes, nose or mouth, but I can read intent in the mind long before it is committed, long before I see the person, in fact . . . at the moment your wife is answering a call from a reporter at the Brentwood Times. I can follow the telephone lines through the phone company to his office. And Mrs. Phillips," he said, not turning his head, "is watching us through a window."

Prof. Tomlin could see Mrs. Phillips at her kitchen window.

BRENTWOOD, Ill., overnight became a sensation. The Brentwood *Times* sent a reporter and photographer out, and the next morning every newspaper in the U. S. carried the story and photograph of George, the robot from Zanthar.

Feature writers from the wire services, the syndicates, photographer-reporter combinations from national newspicture magazines flew to Brentwood and interviewed George. Radio and television and the newsreels cashed in on the sudden novelty of a blue humanoid.

Altogether, his remarks were never much different from those he made to Prof. Tomlin, with whom he continued to reside. Yet the news sources were amusedly tolerant of his views and the world saw no menace in him and took him in stride. He created no problem.

Between interviews and during the long nights, George read all the books in the Tomlin library, the public library, the university library and the books sent to him from the state and Congressional libraries. He was an object of interest to watch while reading: he merely leafed through a book and absorbed all that was in it.

He received letters from old

and young. Clubs were named for him. Novelty companies put out statue likenesses of him. He was, in two weeks, a national symbol as American as corn. He was liked by most, feared by a few, and his habits were daily news stories.

Interest in him had begun to wane in the middle of the third week when some thing put him in the headlines again—he killed a man.

It happened one sunny afternoon when Prof. Tomlin had returned from the university and he and George sat on the front porch for their afternoon chat. It was far from the informal chat of the first day, however. The talk was being recorded for radio release later in the day. A television camera had been set up, focused on the two and nearly a dozen newsmen lounged around, notebooks in hand.

"You have repeatedly mentioned, George, that some of your kind may leave Zanthar for Earth. Why should any like you —why did you, in fact leave your planet? Aren't you robots happy there?"

"Of course," George said, making certain the TV camera was trained on him before continuing. "It's just that we've outgrown the place. We've used up all our raw materials. By now everyone on Earth must be familiar with the fact that we intend to set up a station here as we have on many other planets, a station to manufacture more of *us*.

"Every inhabitant will work for the perpetuation of the Seventh Order, mining metals needed, fabricating parts, performing thousands of useful tasks in order to create humanoids like me. From what I have learned about Earth, you ought to produce more than a million of us a year."

"But you'll never get people to do that," the professor said. "Don't you understand that?"

"Once the people learn that we are the consummation of all creative thinking, that we are all that man could ever hope to be, that we are the apotheosis, they will be glad to create more of us."

"Apotheosis?" Prof. Tomlin repeated. "Sounds like megalomania to me."

The reporters' pencils scribbled. The tape cut soundlessly across the magnetic energizers of the recorders. The man at the gain control didn't flicker an eyelash.

"You don't really believe that, Professor. Instead of wars as a goal, the creation of Seventh Order Humanoids will be the Earth's crowning and sublime achievement. Mankind will be supremely happy. Anybody who could not be would simply prove himself neurotic and would have to be dealt with."

"You will use force?"

The reporters' grips on their pencils tightened. Several looked up.

"How does one deal with the insane, Professor Tomlin?" the robot asked confidently. "They will simply have to be—processed."

"You'll have to process the whole Earth, then. You'll have to include me, too."

The robot gave a laugh. "I admire your challenging spirit, Professor."

"What you are saying is that you, a single robot, intend to conquer the Earth and make its people do your bidding."

"Not alone. I may have to ask for help when the time comes, when I have evaluated the entire planet."

IT was at this moment that a young man strode uncertainly up the walk. There were so many strangers about that no one challenged him until he edged toward the porch, unsteady on his feet. He was drunk.

"Thersha robod I'm af'er," he observed intently. "We'll shee aboud how he'll take lead." He reached into his pocket and pulled out a gun.

There was a flash, as if a soundless explosion had occurred. The heat accompanying it was blistering, but of short duration. When everyone's eyes had become accustomed to the afternoon light again, there was a burned patch on the sidewalk and grass was charred on either side. There was a smell of broiled meat in the air—and no trace of the man.

The next moment newsmen were on their feet and photographers' bulbs were flashing. The TV camera swept to the spot on the sidewalk. An announcer was explaining what had happened, his voice trained in rigid control, shocked with horror and fright.

Moments later sirens screamed and two police cars came into sight. They screeched to the curb and several officers jumped out and ran across the lawn.

While this was going on, Prof. Tomlin sat white-faced and unmoving in his chair. The robot was silent.

When it had been explained to the policemen, five officers advanced toward the robot.

"Stop where you are," George commanded. "It is true that I killed a man, much as any of you would have done if you had been in my place. I can see in your minds what you are intending to say, that you must arrest me—"

Prof. Tomlin found his voice. "George, we will all have to testify that you killed with that force or whatever it is you have. But it will be self-defense, which is justifiable homicide—"

George turned to the professor. "How little you know your own people, Professor Tomlin. Can't you see what the issue will be? It will be claimed by the state that I am not a human being and this will be drummed into every brain in the land. The fine qualities of the man I was compelled to destroy will be held up. No, I already know what the outcome will be. I refuse to be arrested."

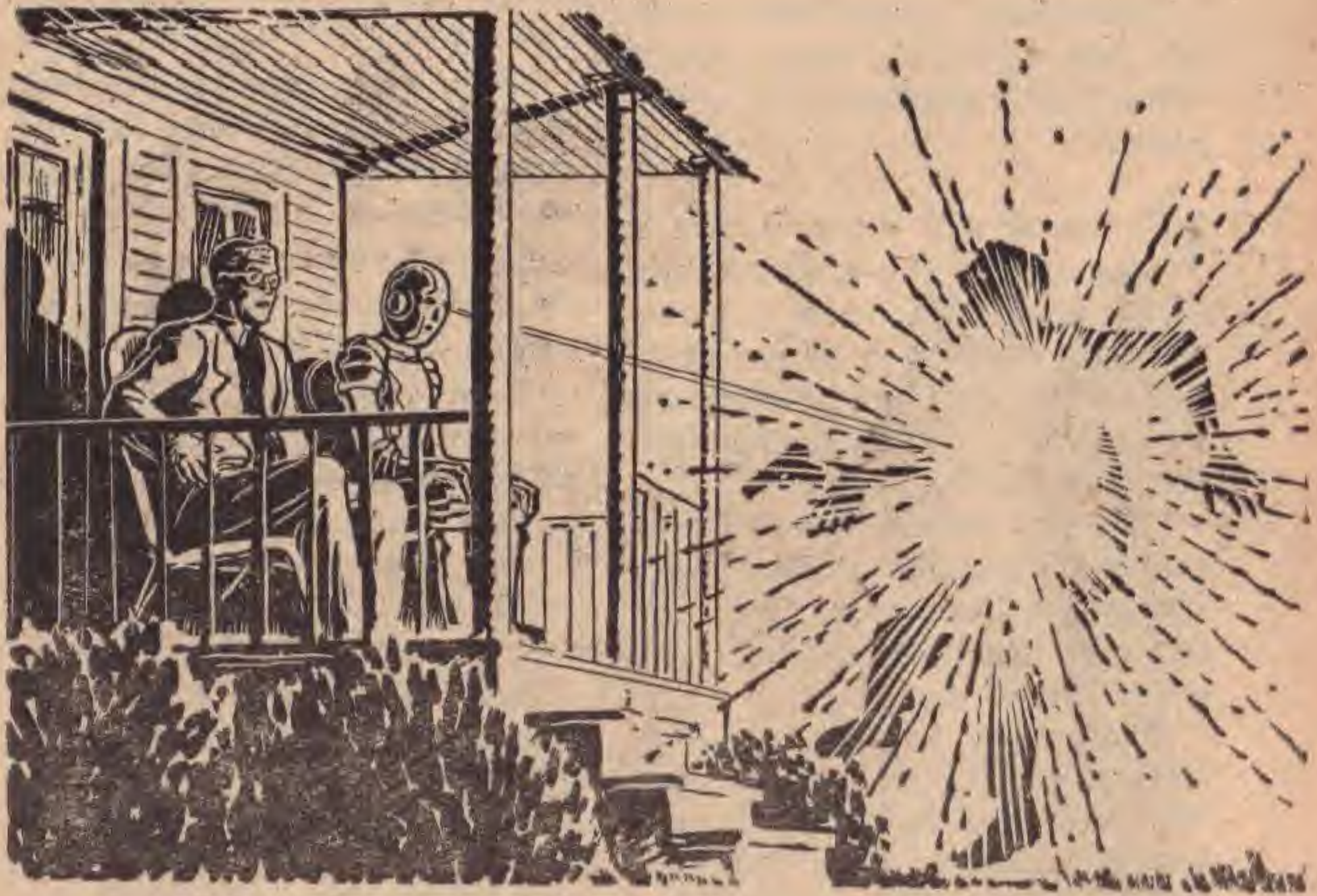
Prof. Tomlin stood up. "Men," he said to the policemen, "do not arrest this—this humanoid. To try to do so would mean your death. I have been with him long enough to know what he can do."

"You taking his side, Professor?" the police sergeant demanded.

"No, damn it," snapped the Professor. "I'm trying to tell you something you might not know."

"We know he's gone too damned far," the sergeant replied. "I think it was Dick Knight that he killed. Nobody in this town can kill a good guy like Dick Knight and get away with it." He advanced toward the robot, drawing his gun.

"I'm warning you—" the Professor started to say.



But it was too late. There was another blinding, scorching flash, more burned grass, more smell of seared flesh.

The police sergeant disappeared.

"Gentlemen!" George said, standing. "Don't lose your heads!"

But he was talking to a retreating group of men. Newsmen walked quickly to what they thought was a safe distance. The radio men silently packed their gear. The TV cameras were rolled noiselessly away.

Prof. Tomlin, alone on the porch with the robot, turned to him and said, "Much of what you have told me comes to have new meaning, George. I understand what you mean when you talk about people being willing to work for your so-called Seventh Order."

"I knew you were a better than average man, Professor Tomlin," the humanoid said, nodding with gratification.

"This is where I get off, George. I'm warning you now that you'd better return to your ship or whatever it is you came in. People just won't stand for what you've

lone. They don't like murder!"

"I cannot return to my ship," George said. "I destroyed it when I arrived. Of course I could instruct some of you how to build another for me, but I don't intend to leave, anyway."

"You will be killed then."

"Come, now, Professor Tomlin. You know better than that."

"If someone else can't, then perhaps I can."

"Fine!" The robot replied jovially. "That's just what I want you to do. Oppose me. Give me a real test of your ability. If you find it impossible to kill me—and I'm sure you will—then I doubt if anyone else will be able to."

Prof. Tomlin lit a cigaret and puffed hard at it. "The trouble with you," he said, eying the humanoid evenly, "is that your makers forgot to give you a conscience."

"Needless baggage, a conscience. One of your Fifth Order failings."

"You will leave here . . ."

"Of course. Under the circumstances, and because of your attitude, you are of very little use to me now, Professor Tomlin."

The robot walked down the steps. People attracted by the police car made a wide aisle for him to the street.

They watched him as he walked out of sight.

THAT night there was a mass meeting in the university's Memorial Gymnasium, attended by several hundred men. They walked in and silently took their seats, some on the playing floor, others in the balcony over the speaker's platform. There was very little talking; the air was tense.

On the platform at the end of the gym were Mayor Harry Winters, Chief of Police Sam Higgins, and Prof. Ansel Tomlin.

"Men," the mayor began, "there is loose in our city a being from another world whom I'm afraid we took too lightly a few days ago. I am speaking of the humanoid—George of Zanthar. It is obvious the machine means business. He evidently came in with one purpose — to prepare Earth for others just like him to follow. He is testing us. He has, as you know, killed two men. Richard Knight, who may have erred in attacking the machine, is nonetheless dead as a result—killed by a force we do not understand. A few minutes later Sergeant Gerald Phillips of the police force was killed in the performance of his duty, trying to arrest the humanoid George for the death of Mr. Knight. We are here to discuss what we can do about George."

He then introduced Prof. Tomlin who told all he knew about

the blue man, his habits, his brain, the experiences with him for the past two and a half weeks.

"If we could determine the source of his power, it might be possible to cut it off or to curtail it. He might be rendered at least temporarily helpless and, while in such a condition, possibly be done away with. He has told me he is vulnerable to force, such as a speeding bullet, if it hit the right spot, but George possesses the ability to read intent long before the commission of an act. The person need not even be in the room. He is probably listening to me here now, although he may be far away."

The men looked at one another, shifted uneasily on their seats, and a few cast apprehensive eyes at the windows and doorways.

"Though he is admittedly a superior creature possessed of powers beyond our comprehension, there must be a weak spot in his armor somewhere. I have dedicated myself to finding that weakness."

The chair recognized a man in the fifth row.

"Mr. Mayor, why don't we all track him down and a lot of us attack him at once? Some of us would die, sure, but he couldn't strike us *all* dead at one time. Somebody's bound to succeed."

"Why not try a high-powered rifle from a long way off?" someone else suggested, frantically.

"Let's bomb him," still another offered.

The mayor waved them quiet and turned to Prof. Tomlin. The professor got to his feet again.

"I'm not sure that would work, gentlemen," he said. "The humanoid is able to keep track of hundreds of things at the same time. No doubt he could unleash his power in several directions almost at once."

"But we don't know!"

"It's worth a try!"

At that moment George walked into the room and the clamor died at its height. He went noiselessly down an aisle to the platform, mounted it and turned to the assembly. He was a magnificent blue figure, eyes flashing, chest out, head proud. He eyed them all.

"You are working yourselves up needlessly," he said quietly. "It is not my intention, nor is it the intention of any Seventh Order Humanoid, to kill or cause suffering. It's simply that you do not understand what it would mean to dedicate yourselves to the fulfillment of the Seventh Order destiny. It is your heritage, yours because you have advanced in your technology so far that Earth has been chosen by us as a station. You will have the privilege of creating us. To give you such a worthwhile goal in your short

lives is actually doing you a service—a service far outweighed by any of your citizens. Beside a Seventh Order Humanoid, your lives are unimportant in the great cosmic scheme of things—"

"If they're so unimportant, why did you bother to take two of them?"

"Yeah. Why don't you bring back Dick Knight and Sergeant Phillips?"

"Do you want to be buried lying down or standing up?"

The collective courage rallied. There were catcalls and hoots, stamping of feet.

Suddenly from the balcony over George's head a man leaned over, a metal folding chair in his hands, aiming at George's head. An instant later the man disappeared in a flash and the chair dropped toward George. He moved only a few inches and the chair thudded to the platform before him. He had not looked up.

For a moment the crowd sat stunned. Then they rose and started for the blue man. Some drew guns they had brought. The hall was filled with blinding flashes, with smoke, with a horrible stench, screams, swearing, cries of fear and pain. There was a rush for the exits. Some died at the feet of their fellow men.

In the end, when all were gone, George of Zanthar still stood on the platform, alone. There was no movement except the twitching of the new dead, the trampled, on the floor.

EVENTS happened fast after that. The Illinois National Guard mobilized, sent a division to Brentwood to hunt George down. He met them at the city square. They rumbled in and trained machine guns and tank rifles on him. The tanks and personnel flashed out of existence before a shot was fired.

Brentwood was ordered evacuated. The regular Army was called in. Reconnaissance planes reported George was still standing in the city square. Jet planes materialized just above the hills and made sudden dives, but before their pilots could fire a shot, they were snuffed out of the air in a burst of fire.

Bombers first went over singly, only to follow the jets' fate. A squadron bloomed into a fiery ball as it neared the target. A long-range gun twenty miles away was demolished when its ammunition blew up shortly before firing.

Three days after George had killed his first man, action ceased. The countryside was deathly still. Not a living person could be seen for several miles around. But George still stood patiently in the

square. He stood there for three more days and yet nothing happened.

On the fourth day, he sensed that a solitary soldier had started toward the city from five miles to the east. In his mind's eye he followed the soldier approaching the city. The soldier, a sergeant, was bearing a white flag that fluttered in the breeze; he was not armed. After an hour he saw the sergeant enter the square and walk toward him. When they were within twenty feet of one another, the soldier stopped and saluted.

"Major General Pitt requests a meeting with you, sir," the soldier said, trembling and trying hard not to.

"Do not be frightened," George said. "I see you intend me no harm."

The soldier reddened. "Will you accompany me?"

"Certainly."

The two turned toward the east and started to walk.

FIVE miles east of Brentwood lies a small community named Minerva. Population: 200. The highway from Brentwood to Chicago cuts the town in two. In the center of town, on the north side of the road, stands a new building—the Minerva Town Hall—built the year before with money raised by the residents. It was the largest and most elaborate building in Minerva, which had been evacuated three days before.

On this morning the town hall was occupied by army men. Maj. Gen. Pitt fretted and fumed at the four officers and twenty enlisted men waiting in the building.

"It's an indignity!" he railed at the men who were forced to listen to him. "We have orders to talk appeasement with him! Nuts! We lose a few men, a few planes and now we're ready to meet George halfway. What's the country coming to? There ought to be something that would knock him out. Why should we have to send in *after* him? It's disgusting!"

The major general, a large man with a bristling white mustache and a red face, stamped back and forth in the council room. Some of the officers and men smiled to themselves. The general was a well known fighting man. Orders he had received hamstrung him and, as soldiers, they sympathized with him.

"What kind of men do we have in the higher echelons?" He asked everybody in general and nobody in particular. "They won't even let us have a field telephone. We're supposed to make a report by radio. Now isn't that smart?" He shook his head, looked the men over. "An appeasement team,

that's what you are, when you ought to be a combat team to lick hell out of George.

"Why were you all assigned to this particular duty? I never saw any of you before and I understand you're all strangers to each other, too. Hell, what will they do next? Appeasement. I never appeased anybody before in my whole life. I'd rather spit in his eye. What am I supposed to talk about? The weather? What authority do I have to yak with a walking collection of nuts and bolts!"

An officer strode into the room and saluted the general. "They're coming, sir," he said.

"Who's coming? . . . My God, man," the general spluttered angrily, "be specific. Who the hell are 'they'?"

"Why, George and Sergeant Matthews, sir. You remember, the sergeant who volunteered to go into Brentwood—"

"Oh, *them*. Well, all I have to say is this is a hell of a war. I haven't figured out what I am going to say yet."

"Shall I have them wait, sir?"

"Hell, no. Let's get this over with. I'll find out what George has to say and maybe that'll give me a lead."

Before George entered the Council chamber, he already knew the mind of each man. He saw the room through their eyes. He knew everything about them, what they were wearing, what they were thinking. All had guns, yet none of them would kill him, although at least one man, Maj. Gen. Pitt, would have liked to.

They were going to talk appeasement, George knew, but he could also see that the general didn't know what line the conversation would take or what concessions he could make on behalf of his people.

Wait—there was one man among the twenty-three who had an odd thought. It was a soldier he had seen looking through a window at him. This man was thinking about eleven o'clock, for George could see in the man's mind various symbols for fifteen minutes from then—the hands of a clock, a watch, the numerals 11. But George could not see any significance to the thought.

When he entered the room with the sergeant, he was ushered to a table. He sat down with Maj. Gen. Pitt, who glowered at him. Letting his mind roam the room, George picked up the numerals again and identified the man thinking them as the officer behind and a little to the right of the general.

What was going to happen at eleven? The man had no conscious thought of harm to anyone, yet the idea kept obtruding and seemed so out of keeping with his

other thoughts George assigned several of his circuits to the man. The fact that the lieutenant looked at his watch and saw that it was 10:50 steeled George still more. If there was to be trouble, it would come from this one man.

"I'm General Pitt," the general said drily. "You're George, of course. I have been instructed to ask you what, exactly, your intentions are toward the United States and the world in general, with a view toward reaching some sort of agreement with you and others of your kind, who will, as you say invade the Earth."

"Invade, General Pitt," George replied, "is not the word."

"All right, whatever the word is. We're all familiar with the plan you've been talking about. What we want to know is, where do you go from here?"

"The fact that there has been no reluctance on the part of the armed forces to talk of an agreement—even though I see that you privately do not favor such a talk, General Pitt—is an encouraging sign. We of Zanthar would not want to improve a planet which could not be educated and would continually oppose our program. This will make it possible for me to turn in a full report in a few days now."

"Will you please get to the point?"

George could see that the lieu-

tenant was looking at his watch again. It was 10:58. George spread his mind out more than twenty miles, but could find no installation, horizontally or vertically, that indicated trouble. None of the men in the room seemed to think of becoming overly hostile.

"Yes, General. After my message goes out, there ought to be a landing party on Earth within a few weeks. While waiting for the first party, there must be certain preparations—"

George tensed. The lieutenant was reaching for something. But it somehow didn't seem connected with George. It was something white, a handkerchief. He saw that the man intended to blow his nose and started to relax except that George suddenly became aware of the fact the man *did not need to blow his nose!*

Every thought-piercing circuit became instantly energized in George's mind and reached out in all directions . . .

There were at least ten shots from among the men. They stood there surprised at their actions. Those who had fired their guns now held the smoking weapons awkwardly in their hands.

George's eyes were gone. Smoke curled upward from the two empty sockets where bullets had entered a moment before. The smoke grew heavier and his body became hot. Some of him turned cherry red and the chair on which he had been sitting started to burn. Finally, he collapsed toward the table and rolled to the floor.

He started to cool. He was no longer the shiny blue-steel color he had been—he had turned black. His metal gave off cracking noises and some of it buckled here and there as it cooled.

A FEW minutes later, tense military men and civilians grouped around a radio receiver in Chicago heard the report and relaxed, laughing and slapping each other on the back. Only one sat unmoved in a corner. Others finally sought him out.

"Well, Professor, it was your idea that did the trick. Don't you feel like celebrating?" one of them asked.

Prof. Tomlin shook his head. "If only George had been a little more benign, we might have learned a lot from him."

"What gave you the idea that killed him?"

"Oh, something he said about the unconscious and subconscious," Prof. Tomlin replied. "He admitted they were not penetrable. It was an easy matter to instill a post-hypnotic suggestion in some proven subjects and then to erase the hypnotic experience."

"You make it sound easy."

"It wasn't too difficult, really. It was finding the solution that was hard. We selected more than a hundred men, worked with them for days, finally singled out the best twenty, then made them forget their hypnosis. A first lieutenant—I've forgotten his name—had implanted in him a command even he was not aware of. His subconscious made him blow his nose fifteen minutes after he saw George. Nearly twenty others had post-hypnotic commands to shoot George in the eyes as soon as they saw the lieutenant blow his nose. Of course we also planted a subconscious hate pattern, which wasn't exactly necessary, just to make sure there would be no hesitation, no inhibition, no limiting moral factor.

"None of the men ever saw each other before being sent to Minerva. None realized that they carried with them the order for George's annihilation. The general, who was not one of the hypnotics, was given loose instructions, as were several others, so they could not possibly know the intention. Those of us who had conducted the hypnosis had to stay several hundred miles away so that we could not be reached by George's prying mind . . ."

IN a pasture next to a wood near Brentwood, a metal box buried in the ground suddenly exploded, uprooting a catalpa tree.

On a planet many millions of miles away, a red light—one of many on a giant control board—suddenly winked out.

A blue humanoid made an entry in a large book: *System* 29578. *Planet Three Inhabited.*

Too dangerous for any kind of development.

—JERRY SOHL

***NEW TALES OF SPACE AND TIME**, edited by Raymond J. Healy. Henry Holt & Co., New York*, 1951. 294 *pages*, $3.50

THIS collection of ten new science fiction stories is rather disappointing. Of the ten, one tale seems to me to be truly great, three good, and six average or below.

Kris Neville's "Bettyann" will become one of the classics of alien invasion, in my not too humble opinion. It brings to the field a quality so much of it lacks —the quality of humanity.

Gerald Heard's "B & M—Planet 4" (that's a title?) will enthrall Heardians, of whom I am one. It may well confuse and appall others. In its few pages we learn more about the "bees" of Heard's flying saucers, and about the festering society of his *Doppelgangers*, with an altogether satisfying Utopian outcome.

Ray Bradbury's "Here There Be Tygers" is a bitterly enchanting tale of a world that tried to

entice men to stay, but that failed because the men did not believe in beauty.

Isaac Asimov's "In a Good Cause" is a well-done, but sociologically primitive tale.

The others, by Frank Fenton and Joseph Petrarca, R. Bretnor, P. Schuyler Miller, Cleve Cartmill, A. E. van Vogt, and Anthony Boucher, are all below par, somehow.

CITY AT THE WORLD'S END, by Edmond Hamilton. Frederick Fell, Inc., New York, 1951. 239 *pages,* $2.75

HERE is a most impressive example of the truism that, by using understatement, you can get away with murder in science fiction.

We have to imagine a small city, Middletown by name, blasted by a super-super atom bomb from the "homy" Middle West of today into a future a billion years ahead. The Sun is dying, the Earth practically uninhabitable. After a time some "people" of those days—human and otherwise—arrive from a far star in a spaceship and eventually rehabilitate the world for the benefit of the Middletowners.

The author has made a largely successful effort to keep the major components of his story within the bounds of the human. Quite an accomplishment in view of the nature of the plot.

DOUBLE IN SPACE, by Fletcher Pratt. Doubleday & Co., Inc., New York, 1951. 217 *pages,* $2.75

TWO very recent novelets from *Thrilling Wonder*: "Project Excelsior" (originally called "Asylum Satellite"), and "The Wanderer's Return." Both are pure space opera, about 1/64th of an inch deep. Very highly readable—and just as highly forgettable.

"Excelsior" tells of the Russians with their Earth Satellite Vehicle a few thousand miles in space *beyond* ours, and how their probably nefarious plans (we never learn what they were) are hexed because their vehicle is found to be on collision course with the only asteroid in those parts. Our satellite nobly blasts the asteroid out of existence—in exchange for the Russkis' cure for radiation sickness.

"The Wanderer's Return" is about the space commodore who has been "conditioned" to imitate the voyages of Ulysses in his travels around the Galaxy. A vigilant psychologist eventually catches onto and defeats the plot of the "Corporations" that were vilely trying to get Commodore Lortud's huge inheritance away

from him by making him stay n space so long that they could claim he had abandoned his rights.

THE GREEN HILLS OF EARTH, by Robert A. Heinlein. Shasta Publishers, Chicago, 1951. 256 pages, $3.00

THIS is the third Fall, 1951, hard-cover Heinlein (see the February, 1952 GALAXY for the other two), and second in his "Future History Series" that Shasta is reprinting from magazines.

Three more are promised.

Every one of the ten stories in the book is high-grade stuff, as is indicated by the fact that five of them have already appeared in other science fiction anthologies. The one I like best, "—We Also Walk Dogs," has not, and neither have the nearly as excellent "Logic of Empire" or "Ordeal in Space."

"Space Jockey" and "Delilah and the Space Rigger," two lighter items, are here in hard covers for the first time.

Previously anthologized items are: "The Long Watch," "Gentlemen, Be Seated," "The Black Pits of Luna," "It's Great to Be Back," and, of course, "The Green Hills of Earth."

Definitely a book for the permanent shelf.

GREY LENSMAN, by Edward E. Smith, Ph. D. Fantasy Press, Reading, Pa., 1951. 306 pages, $3.00

EIGHTH in the series of volumes telling the Smithian saga of deep space and superbeings. For Kinnison-fans, Bosone-addicts, lovers of Arisia, "QX-ers," adherents of science fiction writing like this: "The Grey Lensman sent his sense of perception out beyond the confining walls and let it roam the void"—for such people this book will come as a delightfully familiar renewal of old acquaintances with bigger-than-Homeric heroes and villains.

As for this reviewer, a notoriously captious and hypercritical character, *Grey Lensman* simply gives him alternate waves of incredulous laughter and dull, acid boredom.

To the hundreds of irate citizens who are at once going to write in to GALAXY and blast me out of my britches for my sacrilege, I can only offer them the apology that I, too, once liked the Lensman series. It must be that I am growing old. I can no longer accept those comics as science fiction. I suspect, however, that it is science fiction which is growing up and leaving these primitive artifacts behind.

—GROFF CONKLIN

catch that martian

By DAMON KNIGHT

Easily annoyed? Maybe it's just as well that you don't have the power this character possessed!

THE first person who got on the Martian's nerves, according to a survey I made just recently, was a Mrs. Frances Economy, about 42, five foot three, heavy-set, with prominent mole on left cheek, formerly of 302 West 46th Street, Manhattan. Mrs. Economy went to a neighborhood movie on the night of September 5th, and half-way through the first feature, just as she was scrabbling for the last of her popcorn, zip—she wasn't there any more.

That is, she was only half there. She could still see the screen, but it was like a television set with the sound off. The way she realized something had happened to her, she started stomping her feet, like you do when

Illustrated by KARL ROGERS

the sound goes off or the picture stops, and her feet didn't make any noise.

In fact, she couldn't feel the floor, just some kind of rubbery stuff that seemed to be holding her up. Same way with the arms of her chair. They weren't there, as far as her feeling them went.

Everything was dead still. She could hear her own breathing, and the gulp when she swallowed that last mouthful, and her heart beating if she listened close. That was all. When she got up and went out, she didn't step on anybody's feet—and she *tried* to.

Of course I asked her who was sitting next to her when it happened, but she doesn't remember. She didn't notice. It was like that with everybody.

NOT to keep you in suspense, the Martian did it. We figured that out later. There still isn't any proof, but it has to be that way. This Martian, the way it figures, looks just like anybody else. He could be the little guy with the derby hat and the sour expression, or the girl with the china-blue eyes, or the old gent with the chin spinach and glasses on a string. Anybody.

But he's a Martian. I don't see what else he *could* be. And being a Martian, he's got this power that people haven't got. If he feels like it, he just looks at you cockeyed, and zip — you're in some other dimension. I don't know what the scientists would call it, the Fourth or Fifth Dimension or what, but I call it the next-door dimension because it seems like it's right next door —you can see into it. In other words, it's a place where other people can see you, but they can't hear you or touch you, unless they're ghosts too, and there's nothing but some kind of cloudy stuff to walk around on. I don't know if that sounds good or what. It stinks. It's just plain dull.

One more thing, he annoys easy. You crunch popcorn in his ear, he doesn't like that. You step on his toe, same thing. Say, "Hot enough for you?" or slap him on the back when he's got sunburn, serve him a plate of soup with your finger in it—zip.

The way we figured out it's a Martian was that it couldn't be one of us. No human can do a thing like that. Right? So what else could he be but a Martian? It figures. And nobody ever noticed him, so it must be he looks like anybody else. Some humans, they look like everybody else, but not because they want to. He *wants* to, I bet.

The way we know he annoys easy, there was eighteen "ghosts" wandering around when the public first noticed, which was dur-

ing the early morning of September 6th. That was about eleven hours after he got Mrs. Economy.

Thirteen of them were up at Broadway and 49th, walking through traffic. They went right through the cars. By nine o'clock there were two wrecks on that corner and a busted hydrant gushing water all over. The ghost people walked through the water and didn't get wet.

Three more showed up in front of a big delicatessen near 72nd Street and Amsterdam Avenue, just looking in the window. Every once in a while one of them would reach in through the glass and grab for something, but his hand went through the pastrami and chopped liver, so none of them got anything. That was fine for store windows, but it wasn't so fine for the ghost people.

The other two were sailors. They were out in the harbor, walking on water and thumbing their noses at naval officers aboard the ships that were anchored out there. It was hell on discipline.

The first eight patrolmen who reported all this got told they would be fired if they ever came on duty drunk again. But by ten-thirty it was on the radio, and then WPIX sent a camera crew up, and by the time the afternoon papers came out there were so many people in Times Square that we had to put a cordon around the ghosts and divert traffic.

The delicatessen window up on Amsterdam got busted from the crowd leaning against it, or some guy trying to put his hand through the way the three ghosts did; we never figured out which. There were about sixty tugs, launches and rowboats in the harbor, and three helicopters, trying to get close enough to talk to the sailors.

One thing we know, the Martian must have been in that crowd on Times Square, because between one and one-thirty P. M. seven more ghosts wandered through the barrier and joined the other ones. You could tell they were mad, but of course you couldn't tell what they were saying unless you could read lips.

Then there were some more down by Macy's in the afternoon, and a few in Greenwich Village, and by evening we had lost count. The guesses in the papers that night ran from three hundred to a thousand. It was the *Times* that said three hundred. The cops didn't give out any estimate at all.

THE next day, there was just nothing else at all in the papers, or on the radio or TV. Bars did an all-time record business. So did churches.

The Mayor appointed a committee to investigate. The Police Commissioner called out special reserves to handle the mobs. The Governor was understood to say he was thinking about declaring a statewide emergency, but all he got in most papers was half a column among the ads. Later on he denied the whole thing.

Everybody had to be asked what he thought, from Einstein to Martin and Lewis. Some people said mass hysteria, some said the end of the world, some said the Russians.

Winchell was the first one to say in print that it was a Martian. I had the same idea myself, but by the time I got it all worked out I was too late to get the credit.

I was handicapped, because all this time I still hadn't seen one of the ghosts yet. I was on Safe, Loft and Truck—just promoted last spring from a patrolman—and while I was on duty I never got near any of the places where they were congregating. In the evenings, I had to take care of my mother.

But my brain was working. I had this Martian idea, and I kept thinking, thinking, all the time.

I knew better than to mention this to Captain Rifkowicz. All I would have to do was mention to him that I was thinking, and he would say, "With what, Dunlop, with what?" or something sarcastic like that. As for asking him to get me transferred to Homicide or Missing Persons, where I might get assigned to the ghost case, that was out. Rifkowicz says I should have been kept on a beat long enough for my arches to fall, in order to leave more room on top for brains.

So I was on my own. And that evening, when they started announcing the rewards, I knew I had to get that Martian. There was fifteen hundred dollars, voted by the City Council that afternoon, for whoever would find out what was making the ghosts and stop it. Because if it didn't stop, there would be eighteen thousand ghosts in a month, and over two hundred thousand in a year.

Then there was a bunch of private rewards, running from twenty-five bucks to five hundred, offered by people that had relatives among the departed. There was a catch to those, though—you had to get the relatives back.

All together, they added up to nearly five thousand. With that dough, I could afford to hire somebody to take care of Ma and maybe have some private life of my own. There was a cute waitress down on Varick Street, where I had lunch every day. For a long

time I had been thinking if I asked her to go out, maybe she would say yes. But what was the use of me asking her, if all I could do was have her over to listen to Ma talk? All Ma talked about was how sick she was and how nobody cared.

FIRST thing I did, I got together all the newspaper stuff about the ghosts. I spread it out on the living room table and sorted it and started pasting it into a scrapbook. Right away I saw I had to have more information. What was in the papers was mostly stories about the crowds and the accidents and traffic tie-ups, plus interviews with people that didn't know anything.

What I wanted to know was—what were all these people doing when the Martian got them? If I knew that, maybe I could figure out some kind of a pattern, like if the Martian's pet peeve was back-slappers, or people who make you jump a foot when they sneeze, or whatever.

Another thing, I wanted to know all the times and places. From that, I could figure out what the Martian's habits were, if he had any, and with all of it together I could maybe arrange to be on the spot whenever he got sore. Then anybody except me who was there every time would have to be him.

I explained all this to Ma, hoping she would make a sacrifice and let me get Mrs. Proctor from across the hall to sit with her a few evenings. She didn't seem to get the idea. Ma never believes anything she reads in the papers, anyway, except the astrology column. The way it struck her, the whole thing was some kind of a scheme, like gangsters or publicity, and I would be better to stay away from it.

I made one more try, talking up the money I would get, but all she said was, "Well, then why don't you just *tell* that Captain Rifkowicz he's got to *let* you earn that reward?"

Ma has funny ideas about a lot of things. She came over here from England when she was a girl, and it looks like she never did get to understand America. I knew that if I kept after her, she would start crying and telling me about all the things she did for me when I was a baby. You can't argue against that.

So what I did next, I took the bull by the horns. I waited till Ma went to sleep and then I just walked out and hopped an uptown bus on Seventh Avenue. If I couldn't get off during the daytime, I would cut down my sleep for a while, that was all.

I was heading for Times Square, but at Twenty-seventh I

saw a crowd on the sidewalk. I got out and ran over there. Sure enough, in the middle of the crowd was two of the ghosts, a fat man with a soupstrainer mustache and a skinny woman with cherries on her hat. You could tell they were ghosts because the people were waving their hands through them. Aside from that, there was no difference.

I took the lady first, to be polite. I flashed the badge, and then I hauled out my notebook and wrote, "Name and address please," and shoved it at her.

She got the idea and looked through her bag for a pencil and an envelope. She scribbled, "Mrs. Walter F. Walters, Schenectady, N. Y."

I asked her, "When did this happen to you and where?"

She wrote it was about one P.M. the afternoon before, and she was in Schrafft's on Broadway near 37th, eating lunch with her husband. I asked her if the fat man was her husband, and she said he was.

I then asked her if she could remember exactly what the two of them were doing right at the moment when it happened. She thought a while and then said she was talking and her husband was dunking his doughnut in his coffee. I asked her if it was the kind with powdered sugar and she said yes.

I knew then that I was on the right track. She was one of those little women with big jaws that generally seem to have loud voices and like to use them; and I always hated people who dunk those kind of doughnuts, myself. The powdered sugar gets wet and gluey and the dunkers have to lick their fingers right in public.

I thanked them and went on uptown. When I got back home that night, about four A. M. the next morning, I had fifteen interviews in my book. The incidents had taken place all over the midtown area. Six got theirs for talking, four on crowded sidewalks —probably for jostling or stepping on corns—two for yelling on a quiet street at two in the morning, one for dunking, one for singing to himself on a subway, one, judging by the look of him, for not being washed, and one for coming in late to a Broadway play. The six talkers broke down to three in restaurants, two in a newsreel movie, and one in Carnegie Hall while a concert was going on.

Nobody remembered who they were next to at the time, but I was greatly encouraged. I had a hunch I was getting somewhere already.

I GOT through the next day, the eighth, in a kind of daze, and don't think Rifkowicz didn't


LOVE
HOTEL
HOTEL
ASTOR

call my attention to it. I suppose I wasn't worth more than a nickel to the City that day, but I promised myself I would make it up later. For the moment, I ignored Rifkowicz.

On the radio and TV, there were two new developments. In my head, there was one.

First, the radio and TV. I ate lunch in a saloon so as to catch the latest news, even though I had to give up my daily glimpse of the waitress in the beanery. Two things were new. One, people had started noticing that a few things had turned into ghosts—besides people, I mean. Things like a barrel organ, and an automobile that had its horn stuck, and like that.

That made things twice as bad, of course, because anybody was liable to try to touch one of these ghost things and jump to the conclusion they were a ghost, themselves.

Two, the TV reporters were interviewing the ghosts, the same way I did, with paper and pencil. I picked up four more sets of questions and answers just while I was eating lunch.

The ghosts came over fine on TV, by the way. Somehow it looked even creepier on the screen, when you saw somebody's hand disappear into them, than it did when you saw it with your own eyes.

The development in my head was like this. Out of the fifteen cases I already had, and the four I got from TV, there were eight that happened on the street or in subways or buses, five in restaurants, and six in places of entertainment. Four *different* places of entertainment. Now, at first glance, that may not look like it means much. But I said to myself, "What does this Martian do? He travels around from one place to another—that's normal. He eats—that's normal. But he goes to four different shows that I know about in three days —and I know just nineteen cases out of maybe a thousand!"

It all fitted together. Here is this Martian. He's never been here before. We know that because he just now started making trouble. The way I see it, these Martians look us over for a while from a distance, and then they decide to send one Martian down to New York to study us close up. Well, what's the first thing he does, being that he wants to find out all about us? He goes to the movies. And concerts and stage plays too, of course, because he wants to try everything once. But probably he sees two or three double features a day. It stands to reason.

So there he is in the movie, watching and listening so he shouldn't miss anything impor-

tant, and some customer around him starts making loud comments to somebody else, rattling cellophane, and snapping a pocketbook open and shut every five seconds to find a kleenex. So he flips them into the next dimension, where they can make all the noise they want without bothering him.

And that's the reason why there are so many ghosts that got theirs in the movies and places like that. On the streets of any city you can walk for miles without running into more than two or three really obnoxious characters, but in any kind of a theater there's *always* somebody talking, or coughing, or rattling paper. You've noticed that.

I went even further than that. I checked with my notes and then looked in a copy of *Cue* magazine to find out what was playing at each of those theaters when the Martian was there.

I found out that the play was a long-run musical—the concert was musical, naturally—and one of the two movies was a Hollywood remake of a musical comedy. The other was a newsreel.

There it was. I as good as had him. Then I got another idea and went back through my notes to find out where the theater victims had been sitting. The guy in Carnegie Hall had been in the balcony; that's where you hear best, I guess. But the other five had all been sitting down front, in the first four rows.

The little guy was nearsighted.

That's the way I was thinking about him now—a little nearsighted guy who liked music better than Westerns, and was used to some place where everybody's careful not to bother anybody else. It was hard not to feel sorry for him; after all, some people that come from places closer than Mars have a hard time in New York.

But it was me against him. That night the total rewards were up to almost twenty thousand dollars.

I THOUGHT of one thing I could do right away. I could write to the Mayor to make an announcement that if people didn't want to be ghosts, they should keep from making unnecessary noise or being pests, especially in theaters. But one, he probably wouldn't pay any attention to me, and two, if he did, twenty thousand other guys would be following my lead before I could turn around, and one of them would probably catch the Martian before I did.

That night, I did the same as before. I waited till Ma was sleeping, then went out to a movie on Broadway. It was a first-run house, they had a musical play-

ing, and I sat down front.

But nothing happened. The Martian wasn't there.

I felt pretty discouraged when I got home. My time was running out and there are over three hundred theaters in Manhattan. I had to start working faster.

I lay awake for a long while, worrying and thinking about it, and finally I came to one of the most important decisions in my life. The next morning I was going to do something I never did before—call in and pretend like I was sick. And I was going to stay sick until I found the Martian.

I felt bad about it and I felt even worse in the morning, when Rifkowicz told me to take it easy till I got well.

After breakfast, I got the papers and made a list of shows on my way uptown. I went to one on 42nd Street first—it was a musical picture about some composer named Handle, and the second feature was a comedy, but it had Hoagy Carmichael in it, so I figured I should stay for that too. I sat in the fifth row. There was plenty of coughing going on, only nobody got turned into a ghost.

Then I had lunch and went to another musical, on Broadway. I drew another blank.

My eyes were beginning to bother me a little from sitting so close to the screen, so I thought I would just go to a newsreel movie and then walk around a while before dinner. But when I got out of the newsreel I began to feel jittery, and I went straight to another double feature. The Martian wasn't there, either.

I had seen plenty of ghosts standing around on the streets, but they were all just standing there looking kind of lost and bewildered, the way they did after a while. You could tell a new victim because he would be rushing here and there, shoving his hands through things, trying to talk to people, and acting all upset.

One thing I forgot to mention. Everybody was wondering now how these ghosts got along without eating. In this dimension where they were, there wasn't any food—there wasn't *anything*, just the stuff like rubbery clouds that they were standing on. But they all claimed they weren't hungry or thirsty, and they all seemed to be in good shape. Even the ones that had been ghosts now for four days.

When I got out of that last movie, it was about eight in the evening. I was feeling low in my mind, but I still had a healthy appetite. I started wandering around the side streets of Broadway, looking for a restaurant that wasn't too crowded or too ex-

pensive. I passed a theater that was on my list, except I knew I was too late to get a ticket for it. It was the premiere of the newest Rodgers and Hammerstein show, and the lobby and half the sidewalk were full of customers.

I went on past, feeling gloomier because of all the bright lights and excitement, and then I heard something funny. Without paying any attention, I had been listening to one of these raspy-voiced barkers inside the lobby going, "GETcha program here." Now, all of a sudden, he said, "GETch—" and stopped.

I turned around, with a funny prickling up the back of my spine. The voice didn't start up again. Just as I started back toward the lobby, a ghost came out of the crowd. There was no doubt about him being a ghost—he ran through people.

He had a bunch of big booklets with slick covers under his arm, and his mouth was wide open like he was shouting. Then he showed his teeth, and his face got all red, and he lifted the booklets in both hands and threw them away as hard as he could. *They* went through people, too.

The ghost walked away with his hands shoved into his pockets.

RUNNING into that lobby, I shoved my badge at the ticket taker, and told him to find me the manager, quick.

When the manager came up I grabbed him by the lapels and said, "I got reason to believe there's a dangerous criminal going to be in this audience tonight. With your cooperation, we'll get him." He looked worried, so I said, "There won't be any trouble. You just put me where I can see the front rows and leave the rest to me."

He said, "I can't give you a seat. The house is completely sold out."

I told him, "Okay, put me back in the wings, or whatever you call them."

He argued, but he did what I asked. We went down the side aisle, through the orchestra pit and through a little door that went under the stage. Then we went up a little stairway to backstage, and he put me right at the edge of the stage, up front, where I could peek out at the audience.

There was a crowd of people running around back there behind the curtains, actors and chorus girls, guys in their shirt sleeves and guys in overalls. I could hear the hum out front—people were beginning to fill the seats—and I wanted that curtain to go up. I just couldn't wait.

Finally the actors took their places, and the band suddenly started playing, and the curtain went up.

I understand that show is still playing to standing room only, even with all the trouble that's happened since then, but I didn't pay any attention to it and I couldn't even tell you what it was about. I was watching the front four rows, trying to memorize every face I saw.

Right in the middle there were three that I paid more attention to than the rest. One of them was a young blonde girl with blue eyes like the color of Ma's fancy china that she brought with her from the old country. Another was an old gent with chin spinach and glasses on a string. The third was a little guy with a sour expression and a derby hat.

I don't know why I picked out those three, except maybe it was a hunch. Maybe I was looking at the blonde girl just because she was pretty, but then again, I never saw eyes that color before or since. It could be that Martians have china-blue eyes; how would I know? I might have had some wild idea that the old guy could be the Martian and was wearing the frizzy white whiskers because Martians don't have chins exactly like us. And I think I picked on the little guy because he fitted the picture I already had in my head. And the way he was clutching that derby in his lap, like it was made of gold—I was thinking to myself, maybe he's got some kind of ray gun built into that hat; maybe that's how he does it.

I ADMIT that I wasn't thinking very logical—I was too excited—but I never took my eyes off that audience for a second.

I was waiting for somebody to start coughing or sneezing and get turned into a ghost. When that happened, I would be watching the people, and if I was lucky I might see who was looking at the victim when it happened.

That's what I was waiting for. What I got was a sniff of smoke and then somebody started screaming and yelling, *"Fire!"*

Half the audience was on their feet in a second. I looked up, and sure enough there was smoke pouring out at the back of the room. Some more women screamed and the stampede was on.

The girls on stage stopped dancing and the band stopped playing. Somebody—some actor—ran out on the stage and started saying, "Ladies and gentlemen, your attention please. *Walk*, do not run, to the nearest exit. There is no danger. *Walk*, do not run—"

I lost my head. Not on account of the fire. I knew the actor was right and the only bad thing that could happen would be people

trampling each other to death to get out of there. But the seats were emptying fast and it struck me all of a sudden that I didn't know my way through that tangle of scenery backstage. By the time I got down the stairs and out into the auditorium, the Martian might be gone.

I felt cold all over. I didn't even stop to remember that I didn't have to go back the way I came, because there were little steps right at the side of the stage. I ran out from behind the wings and started to jump over the musicians. At that, I would have made it if I hadn't caught my toe in that little trough where the footlights are.

I had worse luck than that, even. I landed smack in the middle of the bass drum.

You never heard such a noise in your life. It sounded as if the ceiling caved in. Sitting there, with my legs and arms sticking out of that drum, I saw the people turn around and look at me like they had been shot. I saw them all, the girl with the china-blue eyes, the old gent with the whiskers, the little guy with the derby, and a lot more. And then, suddenly, all the sound stopped, same as when you turn off a radio.

The guy who owned the drum leaned over and tried to pull me out of it. He couldn't.

His hands went right through me.

LIKE I said, this Martian annoys easy. I dont know what he did about all those women screaming—maybe he figured there was a good reason for that and left them alone. But when I hit that bass drum, it must have burned him good. You know, when you're excited already, a loud noise will make you jump twice as far.

That's about the only satisfaction I got—that I probably annoyed him the worst of anybody in New York City.

That and being so close to catching him.

The company here is nothing to brag about—women that will talk your arm off and half your shoulder, and guys that say, "Peaceful enough for you?" and back-slappers, and people that hum to themselves—

Besides that, the place is so damned dull. Clouds to stand on, nothing to eat even if you wanted to eat, and nothing to do except stand around and watch the new ones come through. We can't even see much of New York any more, because it keeps getting mistier all the time—fading away, kind of, like maybe this dimension is getting a little farther away from the ordinary one every day.

I asked Mr. Dauth yesterday

how he thought the whole thing would wind up. Mr. Dauth isn't bad. He's a big, cheerful guy, about fifty. The kind that likes good food and good beer and a lot of it. But he doesn't complain. He admits that his habit of sucking his teeth out real loud is aggravating and says maybe he deserved what he got, which you'll admit is big of him. So I talk to him a lot, and the other day, when we were watching a new batch that had just come through, I asked him where he thought it would all end, because we can hear each other, you see, being in the same dimension.

He pursed his lips and frowned like he was thinking it over, and then said that as far as he could see, there wasn't any human being that was perfect. Anybody is liable to do something aggravating sooner or later. That's the way people are.

"And this Martian of yours seems to be thorough," he said. "Very thorough. It might take him years to get through studying the Earth."

"And then what?" I asked him.

"Well," he said, "eventually, if he keeps it up long enough, we'll *all* be over here."

I hope he's right. Now that I come to think of it, that cute waitress I mentioned has a habit of setting down a coffee cup so half of it slops into the saucer. If Mr. Dauth is right, all I've got to do is wait.

It stands to reason.

—DAMON KNIGHT

NEXT QUESTION

Evidently the news that Willy Ley was to start a regular science department with this issue, *in which readers' questions would be answered either in the magazine or by mail,* was just what readers wanted—the postman began staggering in with queries as soon as the announcement reached the newsstands. The volume of mail has increased steadily since then. This, instead of distressing us, proves to us that it is a recognizedly valuable readers' service feature.

We're happy. Willy Ley is happy. Those who are having their science questions answered are happy.

But what about you? *If anything in science puzzles you, ask Mr. Ley!* All we request is that you write your question or questions on one sheet of paper, and your note to the magazine, if you have something either complimentary or belligerent to say, on another. And—please!—put your name and address on both sheets.

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Conclusion

the demolished man

By ALFRED BESTER

At each step, Reich defeated the Esper sleuth, but there was a peeper trick left—the biggest and the most daring—and the deadliest of all!

SYNOPSIS

When telepathy emerged as an extracted recessive characteristic, possessors of extra-sensory perception became valuable members of society. In addition to having the skills of their chosen trades or professions, Espers were able to probe the mind for unknown or concealed meanings. They belonged to the Esper Guild, were known as "peepers" and were divided into classes according to their ability to penetrate the mind: 3rds could peep the conscious; 2nds dug past that to the preconscious and subconscious; while 1sts, the elite of the Guild, could explore every crevice of the

deeply buried unconscious.

Because of Espers, premeditated murder was impossible. Telepaths could peep the intent of a killer before the crime, or peep the evidence needed for conviction after it. No slayer had escaped the dreaded Demolition Chamber in Kingston Hospital in 70 years.

Despite this, Ben Reich, piratical owner of Sacrament, Inc., was driven by a recurrent nightmare about a Man With No Face to plan the murder of his bitter commercial rival, Craye D'Courtney, of the D'Courtney Cartel on Mars, to end the economic war.

With the aid of Augustus T8, E.M.D.1 (Esper Medical Doctor 1st class) and Jerry Church, a 2nd class peeper ostracized from the Guild, Reich went to a party at Maria Beaumont's mansion. In the course of an ancient game called "Sardine," Reich slipped up to the hidden suite of D'Courtney and murdered him. The killing was unexpectedly witnessed by D'Courtney's daughter, Barbara, who ran from the house in hysterical terror with the murder weapon, and mysteriously disappeared.

The murder investigation was handled by Preston Powell, the police department's Prefect of the Psychotic Division, a 1st, deadly for his ability to pry into the unconscious. Powell discovered telepathically that Reich was the murderer, but courts of law would not accept peeper evidence. Powell had to obtain objective proof to bring Reich to Demolition.

Powell swiftly learned that Reich had purchased and presented an antique game book to Maria Beaumont from which she got the "Sardine" game that enabled Reich to attack D'Courtney . . . that Reich had picked up a devilishly repetitive song from Duffy Wyg&, a psych-song writer, and used it to block peeping . . . that the Rhodopsin Ionizer with which Reich immobilized D'Courtney's guards had been developed for Sacrament, Inc., by Dr. Wilson ¼maine.

At almost the same moment, Reich's underworld network and Powell's Esper grapevine located the missing Barbara D'Courtney in a slum Frab Joint. In a hectic race through the maze of the joint, Reich managed to unearth the knife-pistol with the blank cartridges which blew out D'Courtney's brains. Although he and Powell were hidden from each other, they located Barbara D'Courtney simultaneously. Reich remained concealed while Powell talked to the girl. She was suffering from hysterical recall and could relive only the scene of her father's death each time she heard the trigger word "Help." As Powell led the girl away, Reich tried to shoot them. He could not force himself to do so.

Taken to Powell's house, Barbara was given the Deja Eprouve treatment to bring her out of catatonia. This treatment would return her to the moment of birth and enable her to "grow up" again at an accelerated tempo that took four weeks, when she would be able to face the horror that her conscious mind was struggling to reject.

While she went through infancy, Powell learned, by peeping her memory of the murder, that Craye D'Courtney did not resist Reich's attack. Powell consulted Sam @kins, D'Courtney's Esper Analyst 1, and found that D'Courtney was on the verge of suicide, the result of guilt feelings because of the abandonment of his child. Powell also discovered that Augustus T8 had broken the Guild Pledge and was Reich's accessory.

Realizing that the murder weapon might have been bought at Jerry Church's pawnshop, Powell tricked T8 into meeting him there to reveal the truth about the knife-pistol. Church refused to talk but T8, shaken by threat of exile from the Guild, confessed all he knew about Reich's offer to merge with D'Courtney, the code refusal, and the nightmares about the Man With No Face which goaded Reich into the murder.

A sudden attack by the goons of Keno Quizzard, Reich's blind underworld lieutenant, resulted in the death of T8. Church, shocked by the brutal assault that might also have killed him, hastily told Powell that Reich had bought the knife-pistol which killed D'Courtney — but Reich had first removed the bullets from the cartridges.

With opportunity and method of killing taking shape, Powell rushed home to clear up the curious point about D'Courtney's strange idea that he had abandoned his child. Powell peeped Barbara, who by now had advanced to the toddler stage. Penetrating deep into her unconscious, he learned to his dismay that the girl was falling in love with him, Mary Noyes, Powell's close friend, who was in love with him herself, bitterly informed Powell that he was falling in love with Barbara, too, and was unaware of it. The Esper Guild demanded that Espers marry Espers, and Barbara was not even sane, let alone a peeper. What did Powell intend to do about it?

Before the startled Powell could find an answer, word came that Ben Reich's code chief, Hassop, who had in his possession Sacrament's vital financial records which could prove Reich's financial motive for the murder, had disappeared from Ampro, where he had been hidden by Reich. Powell had to take a spaceship for Ampro at once.

XIII

AS the *Ampro Queen* ponderously circled the hodgepodge in space that was the amusement center of the Solar System (Ampro — Amusement Protectorate) and the unofficial neutral territory, the ventral hatch opened and dozens of landing launches swept up through space to lodge inside her belly. Then the hatch closed, the central staging hall was refilled with air, and the passengers permitted to enter from the ships' ramps.

The staging hall was a domed cavern, five hundred feet long, a hundred wide and fifty feet to the peak. You carried your luggage from your stateroom down to the staging hall . . . and that was the beginning of the wild frenzy of your vacation at Ampro.

Thirty launches with crystal sightseeing ports rested on the floor. They were painted in garish colors and each prominently displayed the name of the hotel that had sent it. The smaller ho-

tels had to be content with single barkers, but the more prosperous establishments sent entire acts. On top of the *Victoria* launch, for example, was a troupe of trampoline acrobats in violent free-flight. The *Victoria* catered to a muscle clientele. The *Magic* launch had sixteen lovely mermaids droning deafeningly on harps. The *Sportsman* displayed an energetic clown in ludicrous cap, sweater and plus-fours who putted small white balls to the tourists. Each ball was a sphere of soft plastic which spoke in a faint, tinny voice: "For the best in sports, come to the *Sportsman*. Sovereign a day for single, and up."

Powell threaded his way through the crowds and entered the small black police launch. Sergeant Al Bible was waiting despondently for him.

"We loused it," Bible said.

A warning bell clanged. The launch sealed up and, as the ventral hatch opened, it dropped into space. Powell glanced out of the port at Ampro glittering below like a patchwork quilt worked in silver and gilt.

Ampro had started generations back with a flat plate of meteoric rock half a mile in diameter. A health cultist had raised a transparent hemisphere of Air-Gel on the plate, installed an atmosphere generator and started a colony. From that, Ampro had grown into an irregular table in space, extending hundreds of miles. Each new entrepreneur had simply tacked another mile or so onto the shelf, raised his own transparent hemisphere and gone into business. By the time engineers got around to advising Ampro that the spherical form was more efficient and economical, it was too late to change. The table just went on adding new hemispheres like a mass of giant soap bubbles on a bright checkerboard.

The various planetary and satellitic colonies attempted to reproduce the environments of their homes. "Mars From Home" was reddish and wasted, but with the added luxury of lakes of blue water. "Venus From Home" was misty. On the Jupiter side of the table was the giant hundred mile hemisphere that covered the Ampro Nature Reservation which guaranteed more natural history and weather per square mile than any planet.

"Let's have the story, Al," Powell said.

Bible gulped. "We followed instructions. Rough tail on Hassop, slickie following him. The rough got taken out by Reich's girl . . ."

"It *was* a girl, eh?"

"Cute little trick named Duffy Wyg&."

Powell jerked upright. "Why, I questioned that girl myself! I never—" He caught himself and shook his head. "Seems I did

some lousing myself, Al. Shows you when you meet a pretty girl, look out!"

"Well, like I say," Bible continued, "she takes out the rough, and just when the slickie moves in, Reich jets into Ampro with a commotion."

"Like?"

"Private yacht. Has a crash in space and limps in hollerin' emergency. One killed. Three injured, including Reich. Front of the yacht stove in. Derelict or meteor stray. They take Reich to the hospital where we figure he's planted for a little. When we turn around, Reich's gone. Hassop too. I grab a peeper interpreter and go looking in four Solar languages. No dice."

"Hassop's luggage?"

"Gone likewise."

"Damnation! We've got to pinch Hassop and that luggage, Al. They're our motive. Hassop is Sacrament's Code Chief. We need him for that last message Reich sent to D'Courtney and the reply . . ."

"Monday before the murder?"

"Yes. That exchange probably ignited the killing. And Hassop's got Reich's financial records with him. They can probably tell a court why Reich had a hell of a motive for murdering D'Courtney."

"Such as?"

"The talk around Sacrament is that D'Courtney had Reich with his back clear against the wall."

"You find method and opportunity?"

"Yes and no. I opened up Jerry Church and got everything, but it's ticklish. We can show Reich had the opportunity. We can show the murder method. Same goes for Reich's motive. But they're like three wigwam poles—each stands if the other two do. That's Mr. Peetcy's opinion. And that's why we need Hassop."

"I'll swear they ain't left Ampro. That efficient I still am."

"Don't hang your head because Reich outsmarted you. He's outsmarted plenty. Me included."

Bible shook his head gloomily.

"I'll start peeping Ampro for Reich and Hassop at once," Powell said as the launch drifted down for the passage through the airlock, "but I want to check a hunch first. Show me the corpse."

"What corpse?"

"From Reich's crash."

In the police mortuary, displayed on an air-cushion in the stasis-freeze, the corpse was a mangled figure with dead white skin and a flaming red beard.

"Uh-huh," Powell muttered. "Keno Quizzard."

"You know him?"

"A gimpster. Was working for Reich and turned too hot to be useful. What'll you bet that crash was a cover-up for a killing?"

"Hell!" Bible exploded. "Those

two other guys are hurt bad and the yacht was ruined!"

"So they were hurt and the yacht was ruined. So what? Quizzard's mouth is shut for keeps and Reich's that much safer. A cheap price for Reich to pay. It was a phony, Al. We started Quizzard running. Reich intercepted and took care of him. We'll never prove it, but we won't have to if we locate Hassop. That'll be enough to walk friend Reich into the Demolition Chamber."

POWELL began a lightning tour of the bubbles.

A Revival Meeting at Solar Rheims . . . hundreds of chanting, genuflecting devotees participating in a kind of hopped-up Midsummer Morn festival. Reply negative. Sailing races in Mars From Home . . . Catboats and sloops skipping over the ½G water in long hops like scaled stones. Reply negative. The Plastic Surgery Resort . . . hundreds of bandaged faces and bodies ("My dear, this is positively my last attempt. Dr. Stress says he'll refund for every operation if my eyes don't come out fuchsia this time.") Reply negative. Free-flight Polo. Reply negative. Hot Sulphur Springs, White Sulphur Springs, Black Sulphur Springs, No Sulphur Springs . . . replies negative.

Discouraged, Powell dropped into Solar Dawn Cemetery for a good laugh. The cemetery looked like an English garden, all flagged paths and trees with tiny little plots of green grass. Muted music from robot quartets, made up as musical greats of the past. Beethoven, Tchaikowsky, Palestrina and Bix Beiderbeck incongruously under one roof, Armstrong, Caruso, Wagner and Florence Foster Jenkins under another. Powell began to smile.

There was an accurate reproduction of the Notre Dame Cathedral in the center of the cemetery. From the mouth of one of the gargoyles in the tower, a syrupy voice roared: "See the drama of the gods portrayed in vibrant robot-action! Moses on Mt. Sinai, the Crucifixion of Christ, Mohammed and the mountain, Lao Tse and the Moon, the Revelation of Mary Baker Eddy, the Ascension of our Lord Buddha, the Unveiling of the true and only god Galaxy . . ." Pause, and then a little more matter-of-factly: "Owing to the sacred nature of this exhibit, admission is by ticket only. Tickets may be purchased from the Bailiff." A click, and another gargoyle began in another language. Powell's smile turned to a grin.

Each of the green plots contained a crystal panel ten feet square, the ceiling of a stasis room in which the departed were displayed to eternity in their pet poses amid their favorite sur-

roundings. In a boudoir, a loved one primped motionlessly before a mirror. In a monkish library, a bibliophile held a book open while he jotted down a marginal notation. An amateur pilot swaggered grimly on the bridge of a rocket ship. A nature-lover communed with nature. Powell laughed.

"You ought to be ashamed of yourself," a girl said behind him.

Without turning, Powell replied: "I'm sorry. 'No Loud Talking or Laughter.' But don't you think this is the most ludicrous display of vanity in—" Then the pattern of her psyche hit him and he spun around.

"Well, Duffy!" he said.

Her frown changed to a quick smile. "Mr. Powell, the boy-sleuth. You still owe me a dance."

"I owe you an apology," Powell said.

"Delighted. Can't have enough of them. What's this one for?"

"Underestimating you."

"The story of my life." She linked arms and drew him along the path. "You took another look at me and—?"

"I realized you're the cleverest person Ben Reich has working for him."

"I am clever. I did do some work for Ben. Well?"

"You took out the tail we had on Hassop, Duffy. Congratulations."

Her pert face looked up at him, half serious, half amused. "What in hell are you talking about?"

"We had a tail on Hassop. A tail is a secret agent assigned to the duty of following a suspect."

"Contents noted. What's a Hassop?"

"A man who works for Ben Reich. His Code Chief."

"And what did I do to your spy?"

"Following instructions from Ben Reich, you captivated the man, turned him into a derelict from duty, kept him at a piano day after day—"

"Wait a minute!" Duffy said sharply. "The little goon was a cop?"

"He was."

"Following this Hassop?"

"Yes."

"Hassop . . . Bleached man? Dusty hair? Dusty blue eyes?"

Powell nodded.

"The louse," Duffy muttered. "And you think I'm the kind that does his dirty work, don't you! Why, you—you peeper! I make enough money to *keep* peepers! Reich asked me to do him a favor. Said there was a man up here working on an interesting musical code. Wanted me to check him. How was I supposed to know it was your goon masquerading as a musician?"

Powell stared at her. "Are you claiming that Reich tricked you?"

She glared back. "Go ahead

and peep me. If Reich wasn't in the Reservation, you could peep that doublecrossing—"

"Hold it!" Powell interrupted sharply. He peeped her precisely and comprehensively, then turned and began to run.

"Hey!" Duffy yelled. "What's the verdict?"

"Medal of Honor," Powell called over his shoulder. "I'll pin it on as soon as I bring a man back alive."

"I don't want a man. I want you."

"That's your trouble, Duffy. You want anybody."

"Who?"

"An-y-bod-y."

"No loud talking or laughter, please!"

POWELL found Sergeant Bible in the Ampro Globe Theater where Diana Clerisy, the magnificent Esper actress, stirred thousands with her performances. Bible, immune to Miss Clerisy's appeal, was gloomily inspecting the house face by face. Powell took his arm and led him out.

"He's in the Reservation," Powell said. "Took Hassop with him. Took Hassop's luggage, too. Perfect alibi. He was shaken up by the crash and he needs a rest. Also company. He's eight hours ahead of us."

"The Reservation, huh?" Bible pondered. "Two hundred and fifty square miles of more damned animals, geography and weather than anywhere else."

"If we want to get Hassop out, we'll have to grab a helio and do some fast hunting."

"No mechanical transportation allowed in the Reservation."

"This is an emergency! Peetcy's got to have Hassop!"

"Let Peetcy argue with the Ampro Board. You could get special permission in maybe three-four weeks."

"By which time Hassop'd be dead and buried. What about radar or sonar? We could work out Hassop's pattern and—"

"No devices outside of cameras. You hike on your own feet. You carry your own food. You take one Defensive Barrier Screen with you so's the animals don't eat you. If you want a fire, you got to build it. If you want to hunt, you got to make your own weapons. You versus nature. And they make you sign a release in case nature wins."

"Then how are we going to find Hassop?"

"Sign a release and go hike for him."

"The two of us? Cover 250 square miles of geography? How many cops can you spare?"

"Maybe ten."

"Twenty-five square miles per cop. Impossible."

"Maybe you could persuade the Ampro Board— No. Even if you could, we wouldn't be able

to get them together in less than a week. Could you get 'em together by maybe peeping 'em?"

"We can't transmit to anybody except another peeper, so— Hey! *That's* an idea. Is a human being a mechanical device?"

"Not lately."

"Then I'm going to do some fast co-opting and take my own radar into the Reservation."

WHICH is why a sudden craving for nature overtook a prominent lawyer in the midst of delicate contractual negotiations in one of Ampro's luxurious conference rooms. The same craving also came upon the secretary of a famous author, a judge of domestic relations, a job analyst screening applicants for the United Hotel Association, an industrial designer, an efficiency engineer, the chairman of Amalgamated Union's Grievance Committee, Titan's superintendent of cybernetics, a secretary of political psychology, two Cabinet members, five Parliamentary leaders, and scores of other Esper clients of Ampro at work and at play.

They filed through the Reservation gate in a unified mood of holiday festivity and assorted clothes. Those that had gotten word on the grapevine early enough were in sturdy camping clothes. Others were not; and the astonished gate guards, checking and inspecting for illicit baggage, saw one lunatic in full diplomatic panoply march through with a pack on his back. But all the nature-lovers carried detailed maps of the Reservation carefully zoned into sectors.

Moving swiftly, they spread out and beat forward across the miniature cosmos of weather and geography. The Telepathic Band crackled as comments and information swept up and back the line of living radar in which Powell occupied the central position.

"Snowing here. Full blizzard."

"Swamps and (Ugh!) mosquitoes my way."

"Does anyone know what a rattlesnake looks like?"

"Don't bite it, your honor."

"More damn nature . . ."

"Party ahead, Pres. Sector 9."

"Let's have the picture."

"Here it comes . . ."

"No sale."

"Party ahead, Pres. Sector 17."

"Shoot a picture, Mr. Chairman."

"It's a bear!"

"Call that a bear? Now up on Titan—"

"I'm being chased!"

"Don't run! Negotiate!"

"Say, I've got a lake dead ahead and I can't swim."

"There's no lake in your sector, Julie. I've got 'em all."

"Excuse it, please. Just a mirage."

"More damned geography."

"Party ahead, Pres. Sector 12."

"No sale. Pass 'em by."

"How do you climb a tree?"

"You shinny up."

"Not up. Down."

"How'd you get up, Doctor?"

"A moose helped me."

"Call that a moose? Why, up on Titan, we—"

"Party ahead, Pres. Sector 37."

"No sale."

"Say, anybody ever peep a gnu? I just did."

"Once I gnu a peeper."

"Oh, God! Take that man to Titan!"

"Call that a pun? Up on Titan —"

"Party ahead, Pres. Sector 60. Here's the picture . . ."

"Pass 'em by."

"How long does this go on?"

"They're at least eight hours ahead."

"No. They've got eight hours start, but they may not be eight hours ahead."

"Spell that out, Pres."

"Reich may not have trekked straight ahead. He may have circled around to a favorite spot close to the gate."

"Favorite for what?"

"Murder."

"Ugh!"

"Excuse me. How does one persuade a cat not to devour one?"

"Use political psychology."

"Use your screen, Mr. Secretary."

"Oh, dear . . ."

"Won't it work?"

"Oh, beautifully."

"Then what's the matter?"

"The cat's devouring my top hat."

"Speakin' of top hats, up on Titan I once—Party ahead, Pres."

"Everybody duck."

"Sector 1 is Deep in the Heart of Titan."

"It's a two-headed midget."

"Seventeen feet high."

"Sign off. Us Titans can do our own lyin'. Here's the picture, Pres."

"Pass 'em by, Titan. That's Reich and Hassop."

"WHAT!"

"Don't make anybody suspicious. Just pass 'em by. The rest of you can go home too. All my thanks. From here on I'll take it alone."

"Leave us in on the fun, Pres. We'll surround 'em like a posse and—"

"This needs finesse. I don't want Reich to know I'm abducting Hassop. It's all got to look natural. It's a swindle."

"And you're the thief to do it, Powell."

The departing peepers were propelled by a tiger grin.

THIS particular square mile of Reservation was jungle, swampy, tangled, humid. As darkness fell, Powell slowly wormed his way toward the glimmering campfire Reich had built

in a clearing alongside a small lake. The water was infested with hippo, crocodile and swambat. The trees and terrain swarmed with life. The entire jungle was a savage tribute to the brilliance of Reservation ecologists who could assemble and balance nature on the point of a pin. In tribute to that nature, Reich's Defensive Barrier Screen was in full operation.

Powell could hear mosquitoes whine as they batted against the barrier. He could not risk operating his own, for the screens hummed slightly and Reich had keen ears. Powell inched forward and peeped.

Hassop was beglamored by being with Reich. Reich, working feverishly on a crude, powerful bow, was passionately planning the accident that would take him a little further from Demolition. It was that bow and the arrows that had eaten up the eight hour start on Powell. You can't kill a man in a hunting accident unless you go hunting.

As Reich lifted the bow, his eyes carefully averted from Hassop, his mind intent on the throbbing heart that was his target, Powell drove forward urgently. Before he had moved ten feet, alarm tripped in Reich's mind and the big man was on his feet. He whipped a burning branch from the fire and hurled the flare toward the blackness where Powell was concealed. The idea and execution came so quickly that Powell could not anticipate the action. He would have been fully illumined if Reich had not forgotten the barrier. It stopped the flaming branch in mid-flight and dropped it to the ground.

"Christ!" Reich cried, and swung around abruptly at Hassop.

"What is it, Ben?"

Reich drew the arrow back to the lobe of his ear and held the point on Hassop's body. Hassop scrambled to his feet.

"Ben, watch out! You're aiming at me!"

Hassop leaped to one side unexpectedly as Reich let the arrow fly.

"Ben! For the love of—" Suddenly Hassop realized the intent. Running desperately, he smashed into the invisible wall as an arrow shot past his shoulder and shattered.

"Ben!" he screamed.

"You son of a bitch," Reich growled, and notched another shaft.

Powell leaped forward and reached the edge of the barrier. He could not pass it. Inside, Hassop ran screaming while Reich stalked him.

Powell stepped back into the darkness, thinking desperately. Hassop's screams had aroused the jungle and there was a roaring and an echoing rumble in his

ears. Powell reached out on the TP Band, sensing, touching, feeling. There was nothing but blind fear, blind rage, blind instinct around him.

"It's worth the chance," Powell said to himself. "I've got to bust that barrier."

He set his blocks on the upper levels, masking everything except *fear, terror, fear . . .*

Every bird awoke screaming. The monkeys screamed back and shook branches in sudden flight. A barrage of sucking explosions sounded from the lake as hippos surged up from the shallows in blind terror. The jungle was shaken by the ear-splitting trumpetings of elephants and the thunder of their stampede. Reich heard and froze, ignoring Hassop, who still ran and sobbed, crashing from wall to wall of the barrier.

The hippos hit the barrier first. They were followed by the gigantic swambats and the crocodiles. Then came the elephants, the wapiti, the zebra, the gnu . . . heavy, pounding herds. The manufacturers of the Defensive Barrier Screen had never anticipated a stampede like this. Reich's barrier went down with a sound like scissored glass.

The hippos trampled the fire. Powell darted through the darkness, seized Hassop's arm, and dragged the crazed man across the clearing to the piled packs. A wild hoof sent him reeling, but he held on to Hassop and located the precious film cannister. Still dragging Hassop, he peeped his way through the stampede.

Behind the thick bole of a *lignum vitae*, Powell paused to catch his breath and settle the cannister safely in his pocket. Hassop was still sobbing. Powell sensed Reich, a hundred feet away, back against a fever tree, bow and arrows clutched in his stricken hands. He was confused, furious, terrified . . . but still safe. Powell wanted to keep him safe for Demolition.

Unhitching his Defensive Screen Barrier from his belt, Powell tossed it across the clearing toward the embers of the fire where Reich would surely find it. Then he turned and led the numb, unresisting Code Chief toward the gate.

XIV

AND so, at last, the Reich case was ready for the District Attorney's office and that dreaded monster of facts and evidence, Mr. Peetcy.

Powell and his staff assembled in Peetcy's office. A round table had been set up in the center, and on it was constructed a transparent model of the key rooms of Beaumont House, inhabited by miniature android figures of the people involved.

The Lab had done a superlative job; the models actually resembled the originals. Alongside the table was massed the documentation the staff had prepared, ready for presentation to the legal ogre.

Mr. Peetcy himself occupied the entire circular wall of his giant office. His multitudinous eyes winked and glared coldly. His prodigious memory whirred and hummed. His mouth, the cone of a speaker, hung open in a kind of astonishment at human stupidity. His hands, the keys of a multiflex typewriter, poised over a roll of tape, ready to hammer sense into anybody. Mr. Peetcy was the Prosecution Transistor Computer of the District Attorney's Office, whose awful decisions controlled the preparation, presentation and prosecution of every police case.

"We won't bother Peetcy to start with," Powell told the D.A. "Let's take a look at the models and check them against the Crime Schedule. Your staff has the time sheets. If you catch anything our gang's missed, make a note."

He nodded to Kr½t, the harrassed Lab Chief, who touched a button. Instantly the model was illumined and the dolls came to life. Acoustics had faked a background. There was a hint of music, laughter and chatter. In the main hall of Beaumont House, a pneumatic model of Maria Beaumont slowly climbed to a dais with a tiny book in her hands.

"The time is 11:09 at that point," Powell said to the D.A.'s staff. "Watch the clock above the model. It's geared to synchronize with the action."

In rapt silence, the legal division studied the scene and jotted notes while the androids reproduced the actions discovered by the Moltecs, reported by the witnesses, and inferred by Powell's squad. The lights went out in the model house. The miniature game of Sardine began. The tiny figure of Reich entered the Music Room, met Duffy Wyg& and the Chervil boy, climbed to the Orchid Suite, extinguished the guards and entered the room to encounter D'Courtney. The staging of the murder surprised the lawyers, who made inquiring sounds.

"Got that material from the D'Courtney girl," Powell murmured. "Peeped her. It's authentic."

The little drama came to an end at last with the stampede of the guests from the Panty projection room up to the Orchid Suite where the dolls burst in and crowded around the tiny dead body. There they froze in a grotesque little tableau.

"And that's the overall picture," Powell said. "Now let's take it apart, point for point, and

feed it to Mr. Peetcy. First, opportunity—"

The office door banged open and Commissioner Crabbe marched in as though heading a parade. Behind him were two officers of the Commissioner's squad with a sallow, shriveled man between them.

"Mr. Prefect," Crabbe pronounced formally.

"Mr. Commissioner?"

"While you and the members of your staff have wasted valuable time, the Police Commissioner's office has quietly, efficiently and without fanfare performed and executed the official functions which your—"

"Excuse me, Commissioner," Powell interrupted wearily. "We'll have the speech another time. We're trying to finish off the Reich Case."

"The Reich Case is ended."

"Delighted to hear it. As of when?"

"One hour ago, when it was re-titled the MacGranger Case. There," announced the Commissioner, pointing dramatically at the shriveled man, "stands Sherman MacGranger, self-confessed murderer of Craye D'Courtney!"

"Oh, hell, not another one!"

"This man has confessed to the murder and has, with one blow of almighty truth, smashed the malicious accusation against a man as incapable of crime as I am!"

"I killed him," MacGranger said.

"He didn't kill D'Courtney, Mr. Commissioner. We know this kind. We peep 'em every day."

"Mr. Prefect, I employed a bona fide member of your Guild to check MacGranger's confession. He assures me that MacGranger is not lying."

"The hell you say. Who peeped him?"

"Dr. Alfred Gammon, the eminent psychiatrist who—"

"Gammon?" $$on repeated. "He's a 3rd, a lay psychologist. He couldn't peep a cockroach."

"I killed him," MacGranger said.

"He's not lying, sir. He—"

"He's lying to himself, Mr. Commissioner," Powell said. "He's perfectly sincere, but he can't make us believe he's the killer. Too many have tried that already."

"What?"

"Oh, sure. We've had our quota of cranks who came busting into headquarters hollering for Demolition. How many so far, $$on?"

"Eighteen. And every one honestly believing he murdered D'Courtney."

"Preposterous."

"Then the history of Criminal Investigation is preposterous, sir. There's rarely been a celebrated crime when deluded characters haven't pestered the police with confessions. Some actually got

themselves sentenced. That was before TP, of course. Nowadays, we protect the innocent from themselves. I'm going to protect Sherman MacGranger from himself and from you."

"If you imagine you can pull your peeper tricks on me, Powell—"

"I'll do it with the objective evidence." Powell turned to the shriveled man. "Who invited you to the Beaumont party?"

"I killed him," MacGranger said.

"All right, you killed him. How did you get in?"

"I crashed."

"As a servant?"

MacGranger smiled craftily. "No, as a guest."

"In those clothes?"

"The kind Maria Beaumont likes. Skintight leotards."

"Did you know where D'Courtney was?"

Without hesitation, MacGranger pointed to the Orchid Suite. "He was a lousy, stinkin' crook and I killed him right there!"

"How did you get up there to kill him?"

"In the Sardine game."

"How did you play Sardine?"

"We put out all the lights and one person was It and she went hiding. Everybody went looking for her and when they found her, they hid with her. Finally only one was left all alone in the dark wandering around wondering where everybody was and I went up and killed that dirty son—"

"Are you peeping him?" Powell asked $$on. "Magnificent! The paranoid's paranoiac. He's gotten all that material from the Pantys, but he really believes he was there."

"Never mind your aspersions, Mr. Prefect," Crabbe said angrily. "You have not shaken MacGranger's confession by one iota."

"Haven't you noticed his mistake yet? I'll point it up for you. How did you murder D'Courtney, MacGranger?"

"An infinite ray."

"There's no such animal."

"I invented it."

"MacGranger's a mechanic," Crabbe cut in hastily. "He's described his invention to me. We will have technicians pass on it at a later—"

"I've peeped his picture of the weapon. Describe it for the staff, Mr. Commissioner."

"Well, it's a power-pack projector. It has a double hand grip because the recoil is apparently tremendous. A projector of such power would be required to blow out D'Courtney's head, as actually happened."

"Sure," Powell replied casually. "Now ask him where he concealed it."

Crabbe stared.

"Clever up, Commissioner. He was in skintight leotards. Where did he conceal a two-handed

power-pack 'infinite ray' projector? Not in leotards. A dirk, maybe, but not the machine you've described."

"My God!" Crabbe exclaimed faintly. "I—I never—"

"Well, MacGranger?" Powell asked kindly. "What's the answer?"

The shriveled man burst into tears. Crabbe angrily hauled him out of the room and came back alone, not particularly mollified.

Powell turned to his staff. "Let's get back to work. We'll feed everything to Peetcy for an opinion. First, opportunity. There's no argument with the Moltecs. Reich went up twice as indicated in the model—once to kill, a second time with the posse. You lawyers have any beefs on that?"

"That Sardine game," the D.A. said.

"Reich bought the book, sent it to Beaumont."

"How'd he know she'd play Sardine?"

"He knew she liked games. Sardine was the only completely legible one in the book."

The D.A. scratched his head. "Peetcy takes a lot of convincing. Won't do any harm to try it on, though."

Crabbe, whose aplomb made quick recoveries, burst out: "Gentlemen, I have never approved of the use of that mechanical monster."

$$on began feeding the punched data into Peetcy's ear. "You're absolutely right, Commissioner."

"Now about method," said Powell. "First question: How'd Reich knock out the guards? Kr½t?"

"And furthermore, gentlemen . . ." Crabbe continued.

"Rhodopsin Ionizer," Kr½t cut in. He handed a plastic sphere to Powell, who exhibited it. "Man named ¼maine developed it for Reich's private police. I've got the empiric processing formula ready for Peetcy, and the sample we mocked up. Anybody care to try it?"

The D.A. looked dubious. "I don't see the use. Peetcy can decide about that."

"In addition to which, gentlemen . . ."

"Oh, come on, Crabbe," Kr½t said with unpleasant cheerfulness. "You'll never believe us unless you see it for yourself. It doesn't hurt. Just makes you *non compose* for six or seven—"

The plastic bulb shattered in Powell's fingers. A vivid blue light flared under Crabbe's nose. Caught in mid-oration, the Commissioner dropped to the floor.

"Good Heavens!" Powell exclaimed. He looked at Kr½t severely. "You made the covering too thin, Kr½t. Now see what you've done to Commissioner Crabbe."

"What *I've* done?"

"Feed that data to Peetcy," the D.A. said in a voice rigid with control. "This he'll buy."

They made the Commissioner comfortable. "Now the murder method," Powell repeated. "Kindly watch this, gentlemen. The hand is quicker than the eye." He exhibited a revolver from the police museum. From the chambers he removed the shells, and from one of the shells he extracted the bullet. "This is what Reich did to the gun Jerry Church gave him before the murder—pretended to make it safe. A phony alibi."

"Phony, hell! That gun *is* safe. Is that Church's evidence?"

"It is. Look at your sheet."

"Then you don't have to bother Peetcy with the problem." The D.A. threw his papers down in disgust. "How can a cartridge kill without a bullet? Your sheet doesn't say Reich reloaded."

"He reloaded."

"He did not," Kr½t insisted. "There was no projectile in the wound or the room."

"Why, you located it yourself, Kr½t. That bit of candy gel in D'Courtney's mouth. Remember? And no candy in the stomach."

Kr½t glared, Powell grinned. He took an eyedropper and filled a gel capsule with water, pressed it into the open end of the cartridge above the charge and placed the cartridge in the gun. He raised the gun, aimed at a small wooden block on the edge of the model table, and pulled the trigger. There was a dull, flat explosion and the block leaped into fragments.

"That was a trick!" The D.A. exclaimed. "There was something in that shell besides water."

"With a powder charge, you can shoot an ounce of water with enough muzzle velocity to blow out the back of a head if you fire through the victim's palate. That's why Reich had to shoot through the mouth. That's why Kr½t found that bit of gel and nothing else. The projectile, of course, was gone."

"Give it to Peetcy," the D.A. said faintly. "By God, Powell, I'm beginning to think we've got a case."

"All right. Now, motive. We picked up Reich's business records; Accounting's gone through them. D'Courtney had Reich with his back to the wall. Reich tried to join D'Courtney. He failed. He murdered D'Courtney. Will you buy that?"

"Sure I'll buy it, but will Peetcy? Feed it in and let's see."

They fed in the last of the punched data, shifted Peetcy up from "Idle" to "Run." Peetcy's eyes blinked in hard meditation; his stomach rumbled softly; his memory stuttered. Powell and the others waited with mounting suspense. A soft bell began to ping and Peetcy's type hammered.

"IF IT PLEASE THE COURT, WITH PLEADERING OF NON VULTS AND DEMURRERS, LEGAL SIGNATURES. SS. LEADING CASE HAY V. COHOES AND THE RULE IN SHELLEY'S CASE. URP."

"What the hell?" Powell looked at $$on.

"He gets kittenish now and then," $$on explained.

They held the warm-up for a good five minutes and then kicked him into it. Once more his eyes blinked, his stomach growled, his memory hissed, and Powell and the two staffs waited anxiously. A month's hard work hung on this decision. The type-hammers began to fall.

"BRIEF #921,088. SECTION C-1. PASSION MOTIVE FOR CRIME INSUFFICIENTLY DOCUMENTED. CF STATE V. HANRAHAN, 1202 SUP. COURT. 19, AND SUBSEQUENT LINE OF LEADING CASES."

"Passion motive?" Powell muttered. "Is Peetcy crazy? It's a profit motive. Check C-1, $$on."

$$on checked. "No mistake here."

"Try him again."

They ran Peetcy through it a third time. This time he spoke to the point: "BRIEF #921,088. SECTION C-1. PROFIT MOTIVE FOR CRIME INSUFFICIENTLY DOCUMENTED. CF STATE V. ROYAL 1197 SUP. COURT 388."

"Excuse me," Powell said to the others, "I've got to peep this out with $$on." He turned to $$on: *"Open up, Charley. I smelled an evasion in them last words."*

"Honestly, Pres, I'm not aware of any —"

"If you were aware, it wouldn't be an evasion. It'd be a downright lie. Now lemme see . . . Oh. Of course!" Powell spoke aloud to the staff: "$$on's missing one small point. Code is still working with Hassop upstairs. We've got the knowledge that Reich offered merger and was refused. But we haven't decoded the definite offer and refusal yet. That's what Peetcy wants."

"How do you know the offer was made and refused?" the D. A. asked.

"Got that from Reich himself through Gus T8. It was one of the last things T8 gave me before he was murdered. I tell you what, $$on—add an assumption to the tape. Assuming that our merger evidence is unassailable, which it is, what does Peetcy think of the case?"

$$on hand punched a strip, spliced it to the main problem and fed it in again. By now well warmed up, Peetcy answered in thirty seconds: "BRIEF #921,088. ACCEPTING ASSUMPTION, PROBABILITY OF SUCCESSFUL PROSECUTION 97.0099%."

Powell's staff grinned and relaxed. Powell tore the tape out and presented it to the D.A. with a flourish.

"By God!" the D.A. said. "Ninety-seven per cent! I thought I was lucky when I broke seventy!"

The office door opened and two perspiring men came in.

"Here's Code now," Powell said. "You bust it?"

"We busted it," one said, "and now you're busted, Powell. The whole case is busted."

"What are you talking about?"

"Reich knocked off D'Courtney because D'Courtney wouldn't merge? He had a nice fat profit motive for killing D'Courtney? In a pig's eye he did."

"Reich sent YYJI TTED RRCB UUFE AALK QQBA to D'Courtney," the other added. "That reads: SUGGEST MERGER BOTH OUR INTERESTS EQUAL PARTNERSHIP."

"Damn it, that's what I've said all along. And D'Courtney replied: WWHG. That was a refusal. Reich told T8. T8 told me."

"D'Courtney answered WWHG. That reads: ACCEPT OFFER."

"The hell it does!"

"The hell it doesn't. You'll never convince any court in the Solar System that Reich had a motive for murdering D'Courtney. Your case is washed out."

Powell stood still, his fists clenched. Suddenly he pulled out the android figure of Reich and twisted its head off. He went to Peetcy, yanked out the tapes of

punched data, crumpled them into a wad and hurled the wad across the room. He launched a tremendous kick at the chair Crabbe sat slumped in. While the staffs watched in appalled silence, the chair and Commissioner overturned to the floor.

"Damn you, you're always sitting in that chair!" Powell said and stormed out of the office.

XV

DEMOLITION! Concussion! Explosion! The cell doors burst open. The stellite sparks sizzle in showers of daggers and bullets. And far outside, freedom is waiting in the cloak of darkness and flight into the unknown . . .

Who's outside the cell-block? The Man With No Face! Looking. Looming. Silent.

Fly through space! There's time and safety in the solitude of this velvet-lined launch. The hatch door! Opening. But it can't. I'm alone. The Man With No Face! Looking. Looming. Silent.

But I am innocent, your honor. You will never prove my guilt. On the bench. The Man With No Face.

Looking. Looming. Pounding his gavel.

The pounding turned to knocking on the stateroom door. "Over New York, Mr. Reich. One hour to debarkation."

"All right," Reich croaked. "I hear you."

Climbing out of bed, still in the grip of the nightmare's terror, he lurched around the stateroom. He hurled his linen and clothes into the Disposary, selected fresh clothes from the Dispenser and laid them out.

He went into the bathroom, depilated, showered, steamed and air-washed for ten minutes. He was still reeling. He stepped into the massage alcove and punched "Glow Salt." There was a dull concussion and Reich was hurled to the floor, his back slashed by flying particles.

Reacting instinctively, he darted into the bedroom, seized his traveling case, groped for the cartridge of detonation bulbs he always carried. There were none in the case.

Reich pulled himself together. Aware of the bite of salt in the cuts in his back, he went back into the bathroom, shut off the massage buffers and inspected the alcove wreckage. Someone had removed the cartridge from his case during the night and planted a bulb in each of the massage buffers. The empty cartridge lay behind the alcove.

He inspected his stateroom door. The lock had evidently been gaffed by a master. But who? Why?

He returned deliberately to the bathroom, washed off the salt

and blood, and sprayed his back with coagulent. He dressed, had his coffee and descended to the Staging Hall where, after a savage skirmish with the peeper Customs Man (*Tension, apprehension and dissension have begun!*), he boarded the Sacrament launch that was waiting to take him down to the city.

From the launch he called Sacrament. His secretary's face appeared on the screen.

"Any news of Hassop?" Reich asked.

"No, Mr. Reich. Not since you called from Ampro."

"Give me Relations."

The screen disclosed the chrome lounge of Sacrament. West, carefully binding sheets of typescript into plastic volumes, looked up and grinned.

"Hi, Ben."

"Don't look so cheerful, Ellery," Reich growled. "Where the hell is Hassop? I thought you'd surely—"

West displayed the volumes. "History of my career with Sacrament for your files. Said career ended this morning at nine."

"What?"

"The Guild's just ruled Sacrament out of bounds. Company espionage is unethical."

"Ellery, you can't quit now. Someone tried to boobytrap me on the ship this morning. I've got to find out who it is. I need a peeper."

"Sorry, Ben."

"You don't have to work for Sacrament. I'll put you under personal contract for private service. The same contract Breen has."

"Breen? The analyst? Not any more."

"No—more?"

"The ruling came down today. Exclusive practice barred. It limits the service of peepers. We've got to be dedicated to the most good for the most people."

"It's that bastard, Powell!" Reich shouted. "Using every lousy peeper trick he can dig out of the slime to bitch me!"

"Sign off, Ben. Powell had nothing to do with it. It was T'sung-Hsai, our president. Old T-H finally got around to commercial jurisdiction and handed down a raft of rulings this morning. You got bracketed between a couple of them, that's all."

"You smug peepers talk so much about ethics, but you fight as dirty as—"

"Ben! What's the use of screaming? We've always made it pleasant. Let's break it pleasant."

"Go to hell!" Reich roared and cut the connection. To the launch pilot he said in the same tone: "Take me home!"

REICH burst into his tower apartment, once again awakening the hearts of his staff to

terror and hatred. He hurled his traveling case at the horse-faced valet and went immediately to Breen's suite.

It was empty.

Reich strode to his own rooms and went to the phone. He dialed Gus T8. The screen cleared:

SERVICE PERMANENTLY
DISCONTINUED

Reich stared, broke the connection and dialed Jeremy Church. The screen cleared:

SERVICE PERMANENTLY
DISCONTINUED

He swore and tried Keno Quizzard's gambling house. Again:

SERVICE PERMANENTLY
DISCONTINUED

Reich paced around the study uncertainly, then went to the shimmer of light in the corner that was his safe, wondering if old Geoffrey Reich had anything to contribute. He switched the safe into temporal phase, revealing the honeycomb paper rack, and reached for the small red envelope. As he touched it, he heard the faint click. He doubled up and spun away, his face buried in his arms.

Something brutal punched Reich in the side and slammed him against the wall. He heard his staff come running down the corridor and roared: "Keep out! All of you!"

He stumbled through the wreckage and began sorting over the remains of his safe. He found the TP scrambler he had taken from Chooka Frood's red-eyed woman. He found the malignant steel flower that was the knife-pistol that had killed D'Courtney. It still contained four unfired shells loaded with water and sealed with gel. He thrust both into his pocket, got a fresh cartridge of detonation bulbs from his desk, and tore out of the room, ignoring the servants who stared at him in astonishment.

Reich swore feverishly from the tower apartment to the cellar garage where he deposited his Jumper key in the call slot and waited for the little car. When it came out of storage with the key in the door, Reich turned the key and yanked open the door to jump in. There was a low pressure *rip*. Reich hurled himself to the ground. The Jumper tank exploded, erupting a shattering geyser of fuel and fragments of metal. Reich crawled frantically, reached the exit ramp and ran.

On the street level, bleeding, rank with creosote fuel, he flagged a Jumper.

"Where to?" the driver asked.

He tried to think coherently. "Chooka Frood's. Down in Bastion West."

"They'll never let you in looking like that."

"Chooka Frood!" Reich repeated.

The cab hopped him there. He

thrust past the protesting doorman and the indignant reception clerk to the private office. Chooka was seated at the desk, wearing a dingy smock and a dingy expression that changed to alarm when Reich yanked the scrambler out of his pocket.

"Here I am, Chooka," he said hoarsely. "I used this scrambler on you once before. I'm warmed up for it again."

She screamed: "Magda!"

Reich caught her by the arm and hurled her across the office. The red-eyed woman came running into the office. Reich was ready for her. He clubbed her across the back of the neck.

Ignoring her, he spat at Chooka; "Let's get it squared off. Why the boobytraps?"

Chooka shook her head dazedly.

"Three of them so far. On the ship coming back from Ampro. In my study. In my Jumper. How many more, Chooka?"

"It wasn't me, Reich. So help me!"

"My stateroom lock was gaffed. My safe lock was gaffed. My Jumper lock was gaffed. That takes a professional heavy gimpster. It adds up to you, so let's get it squared off." He slammed the safety off the scrambler. "I've got a man named Powell to swindle. I've got a cartel named D'Courtney to swindle. I've got no time to waste on you."

"For God's sake!" Chooka screamed. "What have I got against you? So you roughhoused a little. So you mugged Magda. So you strong-armed the D'Courtney girl out of me. Would I be shoving you into the Serpent because you held a scrambler on me? Use your head!"

"I used it. If it isn't you, who else?"

"Keno Quizzard. He hires gimpsters too. I heard you and him—"

"Quizzard's dead. Who else?"

"Church."

"He hasn't got the guts or he would have tried it ten years ago. Now he's waiting for favors. Who else?"

"How do I know? There's hundreds hate you enough."

"Thousands, but who could get into my safe? Who could break a phase combination and—"

"Maybe nobody broke into your safe. Maybe somebody broke into your head and peeped the combination."

"Peeped!"

"Yeah, peeped. Maybe you added Church up wrong, or some other peeper that's got a reason to fill your coffin."

"Yes," Reich whispered.

"Church?"

"Powell! He can't get a case together. I stopped him with Duffy Wyg&'s song. I stopped him with the Sardine game. He can't get at ¼maine and the

Rhodopsin. He can't get the gun. He got the D'Courtney girl, but she's probably in Kingston Hospital right now. Hassop's dead in that stampede or missing. He's got nothing but boobytrapping left . . ."

"You're crazy, Reich."

"Am I? Why did he take Elery West and Breen away from me? He knows the only defense I've got against a boobytrap is a peeper."

"But a cop, Reich?"

"Why not a cop? Who'd suspect him? It's what I'd do myself. All right, now I'm going to boobytrap him!" He went to Chooka and yanked her to her feet. "Call Powell. Tell him to come down here right away."

"No, Reich . . ."

"Listen to me, frab-head. Bastion West is owned by the D'Courtney cartel. Now that old D'Courtney's dead, I own the cartel. I own you, Chooka. You want to stay in business? Call Powell!"

"He's a peeper. When he comes down, he'll know I'm lying."

"Wait a minute." Reich thought, then yanked the knife-pistol from his pocket and shoved it into Chooka's hands. "Tell him the D'Courtney girl left this here. It's the gun D'Courtney rode onto the Serpent."

"And you're giving it to him?"

Reich laughed. "By the time he's got it, he'll be boobytrapped."

He thrust Chooka toward the phone, followed her and stood alongside the screen out of the line of sight. He hefted the scrambler in his hand meaningfully.

She dialed Powell's number. Mary Noyes appeared on the screen, listened to Chooka, then called Powell. The Prefect appeared, his lean face haggard, his dark eyes heavily shadowed.

"I . . . I got something you might want, Mr. Powell," Chooka stammered. "I just found it. That girl you took outa my house left it behind. The gun that sent her father onto the Serpent. See?"

"That's it, by heaven!" Powell exclaimed. "I'll be down as fast as a Jumper can jet."

The screen blacked out. Reich dashed out of the Rainbow House and ran through the alleys of Bastion West until he located a public Jumper. He dropped a coin into the lock, opened the door and lurched in.

"*Don't try to think,*" he thought. "*Don't try to plan. Leave it to your instincts. Just wait and kill!*"

Reich fought himself and the controls all the three miles to Hudson Ramp. The killer instinct prompted him to crash-land in Powell's back garden. He didn't know why. As he pounded the twisted cabin door open, a canned voice spoke: "Your attention, please. You are liable for the damage to this vehicle. Leave

your name and address. If we are forced to trace you, you will be liable for the costs. Thank you."

"I'm going to be liable for a lot more," Reich growled. "You're welcome."

He plunged under a heavy clump of forsythia and waited with the scrambler ready. Then he understood why he had crashed. The girl who had answered Powell's phone ran through the garden toward the Jumper. Reich waited. No one else came from the house. The girl spun around before she heard him. A peeper. He pulled the trigger to first notch. She stiffened, helpless.

He was about to pull the trigger all the way back to the big D, but instinct stopped him again. Kill the girl in the house. Seed her body with detonation bulbs and leave that bait for Powell. Reich forced a handkerchief into her mouth, took her by the arm.

Inside the house, Reich found a long, corded modern lounge in the living room and thrust the girl down on it. She was fighting him with everything but her paralyzed body. He grinned savagely, bent down and kissed her full on the mouth.

"My love to Powell," he said, raising the scrambler.

Someone was watching him.

He darted a quick look around the living room. There was no one. He turned back to the girl. "You doing that with TP, peeper?" Then he raised the scrambler. Again he lowered it.

Someone was watching him.

This time, Reich prowled around the living room, searching behind chairs, inside closets, checked the kitchen and the bath. No one. He returned to the living room and Mary Noyes, then thought of the upper floor. He went to the stairs, started to mount them, and stopped in midstride.

Someone *was* watching him.

She was at the head of the stairs, kneeling and peeping through the banisters. She was dressed like a child in tight little leotards with her hair drawn back and tied with ribbon. Barbara D'Courtney.

"I'm Baba," she said.

Reich, shaking, motioned to her faintly. She came down the stairs, holding on to the banister carefully.

"I'm not s'posed to," she said. "Are you Papa's friend?"

Reich took a breath. "I . . ."

"Papa had to go away," she prattled. "But he's coming back right away. If I'm a good girl, he'll bring me a present. I'm trying, but it's awful hard. Are *you* good?"

"Coming b-back? Your *father?*"

She nodded. "You kissed Aunt Mary. I saw it. Papa kisses me. I like it. Does Aunt Mary like

it?" She took his hand confidently. "When I grow up, I'm going to marry Papa. Do you have a girl?"

Reich pulled Barbara around and stared into her face. "Do you think I'll fall into that orbit? How much did you tell Powell?"

"That's my papa," she said. "When I ask him why his name is different from my name, he looks funny. What's your name?"

"Who do you think you're fooling with that act? Answer me!—How much did you tell him?"

She began to cry, trying to pull away from him. "Let me go!"

He dragged her to the lounge where Mary Noyes still sat paralyzed. He threw the girl down beside her and stepped back again, with the scrambler raised. Suddenly, the girl whipped upright in the chair in a listening attitude. Her face lost its childishness and became drawn and taut. She leaped from the lounge, ran, stopped abruptly, then appeared to open a door. She ran forward, yellow hair flying, dark eyes wide with alarm . . . a lightning flash of wild beauty.

"Father!" she screamed. "For God's sake! Father!"

Reich's heart constricted. The girl ran toward him. He stepped forward to catch her. She darted to the left.

"No!" she cried. "No! Father!"

Reich caught her while she fought and screamed. The girl suddenly stiffened and clutched her ears. Reich was in the Orchid Suite. He heard the explosion and saw the blood and brains gout out of the back of D'Courtney's head. She fell to her knees and crawled across the floor. He saw her crouch over the waxen body.

Reich gasped for breath and beat his knuckles together painfully, fighting for control. He had never counted on a witness. Damn Gus T8! Wait. He wasn't in Beaumont House. He was in . . .

"Thirty-three Hudson Ramp," Powell informed him from the front door.

Reich jerked around, whipped the scrambler up.

"Don't try it," Powell warned sharply.

"You son of a bitch!" Reich shouted. "You God damned peeper!"

Powell faked to the left, reversed, delivered a six inch jab to the Ulnar synapse. The scrambler fell to the floor. Reich clinched, punching, clawing, butting. Powell hit him with three lightning blows—nape, navel and groin. The effect was that of a full spinal block. Reich crashed to the floor, retching, blood streaming from his nose.

"You only think you know how to gut-fight," Powell grunted. He went to Barbara D'Courtney, who still knelt on the floor, and raised her. "All right, Barbara?"

"Hello, Papa. I had a bad dream."

"I had to give it to you. It was an experiment on that big oaf."

"Gimme a kiss."

He kissed her forehead. "You're growing up fast," he smiled. "You were just baby-talking yesterday."

"I'm growing up because you promised to wait for me."

"It's a promise, Barbara. Can you go upstairs to your room by yourself or do you have to be carried . . . like yesterday?"

"I can go all by my own self."

She took a firm hold on the banister and climbed up. Just before she reached the top, she stuck her tongue out at Reich, then disappeared. Powell crossed to Mary Noyes, removed the gag, checked her pulse.

"First notch, eh?" he said to Reich. "Painful, but she'll recover in an hour. I ought to pay you back for this, but what's the use? It wouldn't teach you anything. You're just no damned good."

"Kill me!" Reich groaned, writhing. "Kill me or let me up and, by Christ, I'll kill you!"

Powell picked up the scrambler. "Try flexing your muscles a little. Those blocks shouldn't last more than a few seconds . . ." He sat down with the scrambler in his lap. "You had a tough break. I wasn't out of the house five minutes when I realized Chooka's story was a phony. You put her up to it, of course."

"You're the phony!" Reich shouted. "You and your ethics!"

"She said the gun sent D'Courtney on the Serpent," Powell continued imperturbably. "It did, but she couldn't know what killed D'Courtney. I turned around and came back, of course."

Reich struggled up, his breath hissing horribly. Suddenly he dipped into his pocket and brought out the cartridge of detonation bulbs. Powell arched back in the chair and kicked Reich in the chest. The cartridges went flying. Reich collapsed on a sofa.

"When will you learn you can't surprise a peeper?" Powell said. He went to the cartridge and picked it up. "Quite the arsenal today, aren't you? You're acting more like a wanted man than like a free man. Notice I said free, not innocent."

"Free how long?" Reich said through his teeth. "I never talked about innocence either. But free how long?"

"I had a perfect case against you. Every detail right. I checked that when I peeped you with Barbara just now. That one flaw blew my case out into deep space. You're a free man, Reich. We've closed your file."

Reich stared. "Closed the file?"

"You can disarm, Reich. No

one's going to bother you."

"This is one of your peeper tricks!"

"I'll lay it out for you. I know all about you . . . how much you bribed Gus T8 . . . what you promised Jerry Church . . . where you located that Sardine Game . . . what you did with Wilson ¼maine's Rhodopsin Caps . . . how you emptied those cartridges for an alibi and then turned them lethal again with water. So far a perfect chain of evidence. Method and opportunity. But motive was the flaw. The courts demand objective motive and I can't produce it. That sets you free."

"You liar!"

"I could throw breaking and entering with deadly intent at you, but it's too small a charge. You could probably beat it, too. My only witnesses would be a peeper and a sick girl."

"Am I supposed to believe you? You had nothing, Powell. I licked you on every point. That's why you're boobytrapping me." Reich broke off abruptly. "This is probably the biggest boobytrap of all. And I fell into it. What a damned fool I am!"

"Shut up," Powell snapped. "When you rave like that, I can't peep you!"

Powell focused on Reich. Then his face began to pale.

"That's it! Mr. Peetcy was right. Passion motive, and we thought he was kittenish. Barbara's Siamese twin image . . . D'Courtney's guilt. No wonder Reich couldn't kill us at Chooka's . . . But the murder isn't important any more. It goes deeper. And it's more dangerous than I ever dreamed."

He stopped, turned and looked at Reich with blazing eyes. "Do you know how dangerous you are? Does a plague know its peril? Is death aware that it is death?"

Reich goggled at Powell in bewilderment.

"Why ask you?" Powell muttered. "You don't know what I'm talking about. You'll never know."

He went to a sideboard, selected two brandy ampules and popped them into Reich's mouth. Reich choked on the brandy and sputtered angrily.

"Get this straight," Powell said. "The case against you is closed because of those boobytraps. If I'd known about them, I'd have broken my conditioning and killed you."

Reich stopped sputtering.

"When you offered merger to D'Courtney, he sent WWHG in answer, which is acceptance. You had no reason to murder him. That was the flaw in the case."

Reich went white. "WWHG—offer refused!"

"He accepted. When I learned that I knew I couldn't bring the case to court. But I'm not the

man who's trying to murder you. That man is trying to kill you because he knows you're safe from Demolition. He's always known what I've just discovered —that you're a ghastly menace to our entire future."

Reich struggled up out of the sofa. "Who is it? Who?"

"Your ancient enemy, Reich. You'll never be able to run from him . . . hide from him . . . and I hope you'll never be able to save yourself from him."

"WHO IS IT?"

"The Man With No Face."

Reich turned and staggered out of the house.

XVI

"YOU'VE got to think. What's happened to you? Why don't you think?"

Tension, apprehension and—

"He was lying. A giant booby-trap. WWHG—refusal. But why did he lie? How is that going to help him?"

—dissension have begun.

"The Man With No Face. Breen could have told Powell. So could Gus T8. Think!"

Tension—

"There is no Man With No Face. It's just a nightmare!"

Apprehension—

"What about the boobytraps, though? He had me cold in his house. Why didn't he pull the switch? Telling me I'm free. What's he up to? Think!"

Dissension—

"He's your enemy. You'll never be able to run from him . . . hide from him . . . save yourself from him! Not the Man With No Face. It's Powell!"

A hand touched his shoulder. "Mr. Reich?"

Reich became aware that it was raining heavily. He was lying on his side, knees drawn up, drenched, shivering with cold. He was in the esplanade of Bomb Inlet. Around him were sighing, sodden trees. A figure was bending over him.

"Who are you?"

"Galen Chervil. From Maria Beaumont's party. Can I do you that favor, Mr. Reich?"

"Don't peep me!" Reich cried.

"I'm not, Mr. Reich. We don't usually—" Young Chervil caught himself. "I didn't know you knew I was a peeper."

"I know all you lousy—"

"Don't say it, Mr. Reich. You'll make it too easy for me to agree with you."

Young Chervil took him under the shoulders and raised him, staring at Reich's frightful appearance.

"Were you mugged, Mr. Reich?"

"What? No."

"Accident, sir?"

"No, I . . . Oh, get the hell away from me!"

"Certainly, sir. I thought you

needed help and I owe you a favor, but—"

"Come back." Reich grasped the bole of a tree, thrust himself erect and glared at Chervil with bloodshot eyes. "You mean that about the favor?"

"Of course, Mr. Reich."

"My problem's murder, Chervil. I want to find out who's trying to kill me. Will you do me that favor? Will you peep someone for me?"

"I should imagine the police would be able to—"

"The police?" Reich laughed, then clutched himself in agony. "I want you to peep a top cop for me, Chervil. The Commissioner himself." He let go the tree and lurched to Chervil. "I want to visit my friend the Commissioner and ask him a few questions. I want you to be there to tell me the truth."

"But the Commissioner might not care to be peeped, sir."

"He won't know he's peeped," Reich roared. "Look at me, you fool. I'm cut . . . I'm broken . . . I'm half out of my mind . . . I'm two-thirds murdered! I need that favor. You say you owe it. Will you come to Crabbe's office and peep him for me?"

"Yes, Mr. Reich."

"An honest peeper! How about that? Let's jet."

Reich ran out of the esplanade like a freshly decapitated man. Chervil followed, overwhelmed by the fury that drove Reich through injury, through fever, through agony to police headquarters. There, Reich bulled and roared past clerks and guards into Commissioner Crabbe's elaborate ebony-and-silver office.

"My God, Reich!" Crabbe was aghast. "It is you, isn't it?"

"Sit down, Chervil," Reich said. He turned to Crabbe. "It's me. I was almost murdered three times today. This boy . . ." Reich pointed to Chervil. "This boy just found me in the Inlet Esplanade more dead than alive. And where have the damned police been?"

"Murdered!" Crabbe thumped his desk emphatically. "Of course! Powell is a fool. I should never have let Sherman MacGranger go."

"Sherman MacWho?"

"MacGranger. The man who murdered D'Courtney. He signed a confession . . . and that idiot Powell made me free him!"

"MacGranger murdered D'Courtney?"

"He did, Ben, and he's probably after you. I told Powell you were innocent. He wouldn't listen to me. I showed him MacGranger. He wouldn't listen to him. Even when Mr. Peetcy told him you were innocent, he wouldn't listen."

"The machine said I was innocent?"

"Of course it did. There's no

case against you. But there's a case against MacGranger, and I'm going to convict him before he murders you, too." Crabbe strode to the door. "I'm sending out a call for him right now. Don't go, Ben. I want to talk to you about that Solar Senatorship . . ."

The door opened and slammed. Reich reeled and fought his way back to the world. He looked at three Chervils. "Well?"

"He's telling the truth, Mr. Reich."

"About me? About Powell? About MacGranger?"

"He's telling the truth about you," Chervil said. "The Prosecution Transistor Computor has declined to authorize any action against you for the D'Courtney murder. Mr. Powell has been forced to abandon the case and . . . well, his career is in jeopardy."

"Is that true?" Reich seized his shoulders. "Is it?"

"Yes, Mr. Reich. The Commissioner believes he's telling the truth about Sherman MacGrangger, but his recollection shows that MacGranger could not be the murd—"

"To hell with MacGranger! I've been cleared?"

"You have been, Mr. Reich. No one's going to bother you."

Reich burst into a roar of triumphant laughter, brushed past Chervil and left the Commissioner's office, a Neanderthal vestige parading down headquarters' corridors, streaked with blood and mud, laughing and groaning because of the pain of laughing, bearing himself with limping arrogance.

He stood for a moment on the steps, gazing at the rainswept streets . . . at the amusement center across the square, block after block blazing under a single transparent dome . . . at the open shops lining the upper footways, all bustle and brilliance as the city's night shopping began . . . the towering office buildings in the background, great two-hundred-story cubes and the lace tracery of skyways linking them together . . . the twinkling running lights of Jumpers.

"I'll own you!" he promised, his laugh rising hysterically. "Live, die, laugh, cry, love, beget —I'll own you all!"

Then his eyes caught the tall, ominous familiar figure crossing the square, watching him covertly over its shoulder. A figure of black shadows sparkling with raindrop jewels . . . looking, looming, silent, horrible . . .

A Man With No Face.

Like a blighted tree, Reich fell in a crooked arc to the ground.

AT one minute to nine, ten of the fifteen members of the Esper Guild Council assembled in President T'sung Hsai's office. The minutes read as follows:

Request for Mass Cathexis with Preston Powell as canal for Capitalized Energy.

Consternation

T'sung: Honorable Powell, your request bewilders this threadbare brain. What can possibly require such an extraordinary and dangerous measure?

Powell: Reich is about to become a Galactic Focal Point . . . A crucial link between the Positive Past and the Probable Future. He is on the verge of a powerful reorganization at this moment. If Reich can adjust before I reach him, he will become immune to our reality, invulnerable to our attack—the deadly enemy of our Guild and Galactic Reason and Reality.

Alarm

@kins: Surely you're exaggerating, Powell?

Powell: Inspect the picture with me. Look at this perspective of Reich's position in time and space. Will not his beliefs become the world's belief? Will not his reality become the world's reality? Is he not, in his critical position of power, energy and intellect, a sure road to utter destruction?

Conviction

T'sung: It is the truth. Nevertheless, this unworthy person is most reluctant to authorize Mass Cathexis. It has invariably destroyed the Energy Canal in past attempts. You are too valuable to be destroyed, Powell.

Powell: I must be permitted to run the risk. Reich is one of the rare Universe Shakers . . . a child as yet, but about to mature. And all reality . . . Espers, Normals, Life, the Earth, the moons, the Solar System, the galaxies, the Universe itself . . . all reality hangs precariously on his awakening. He cannot be permitted to awaken to the wrong reality. I call the question.

Jordan: You're asking us to vote your death.

Powell: My probable death against the certain death of everything. I call the question.

T'sung: It is a two-tongued question. You have no guarantee that the measure will be successful.

@kins: Let Reich awaken as he will. We have the time and the warning to attack him on another crossroad.

Powell: I call the question!

Decision: Request granted.

Meeting adjourned

Hour hand at 9

Minute hand at 01

Second hand at death

POWELL arrived home a half hour later. He had made his will, paid his bills, arranged everything. There had been dismay

at the Guild. There was dismay when he came home, for Mary Noyes got the picture the instant he entered.

"No fuss. It's got to be done."

"But—"

"There's a chance it won't kill me. Oh, one thing. Lab wants a brain autopsy if I die. They'd like to have the body before rigor. If they can't get the corpse, they'll settle for the head. See to it, will you?"

"Pres!"

"Sorry. Now you'd better pack and take the baby up to Kingston Hospital. She won't be safe here."

"She isn't a baby any more. She—Oh, Pres!"

Mary turned and ran upstairs, trailing the familiar sensory impact: Snow / mint / tulips / taffeta, now mixed with terror and tears. Powell sighed, then smiled as a highly poised teen-ager appeared at the head of the stairs. She paused halfway down to let

him take in the dress and the manner.

"Why, it's Mr. Powell, is it not?"

"It is. Good morning, Barbara."

"And what brings you to our little domain this morning?" She came down the rest of the stairs with her fingertips brushing the banister, and tripped on the bottom step. "Oh, Pip!" she cursed.

Powell caught her. "Pop," he said.

"Bim."

"Bam."

She looked up at him. "You stand right here. I'm going to come down those stairs again and I bet I do it perfect."

"I'll bet you don't."

She turned, trotted up, posed again at the top step and began the grand descent. "I am no longer the mere child I was yesterday. I am ages and ages older. You must regard me as an adult from now on." She negotiated the bottom step and regarded him intently. "Good?"

"Splendid, dear."

Suddenly she laughed, pushed him into a chair and plumped down on his lap. Powell groaned.

"Gently, Barbara. You're ages older and pounds heavier."

"Listen," she said, "what ever made me think you were my father?"

"What's the matter with me as a father?"

"Do you feel like a father toward me? I don't feel like a daughter toward you."

"Oh? How do you feel?"

"I asked first, so you go first."

"My feelings toward you are those of a loving and dutiful son."

She flushed angrily and got up from his lap. "I wanted you to be serious, because I need advice."

"I'm sorry, Barbara. What is it?"

She knelt alongside him and took his hand. "I'm all mixed up about you."

"Yes. I know."

"And you're all mixed up about me, too."

"That's true. I am."

"Is it wrong?"

Powell heaved up from the chair and began pacing unhappily. "No, Barbara, it isn't wrong. The two of us are four people—two of you, and two of me."

"Why?"

"You've been sick, dear, so we had to turn you into a baby and let you grow up again. That's why you're two people. The grown-up Barbara inside, the baby outside."

"And you?"

"I'm two grown-up people. One of them is me. The other is a member of the governing Council of the Esper Guild."

She considered earnestly. "When I don't feel like a daughter to you, which me feels like that?"

"I don't know, Barbara."

"You do know. Why won't you say?" She came to him and put her arms around his neck, a grown-up woman with the manner of a child. "If I love you—"

"*All right,*" Powell thought desperately. "*Remember Gally Chervil? It's your turn now. What are you going to do? Admit the truth?*"

"*Yes!*" came from the stairs. Mary was descending with a traveling case in her hand. "*Admit the truth.*"

"*She isn't a peeper.*"

"*Forget that. She's a woman and she's in love with you. You're in love with her. For God's sake, give yourselves a chance.*"

"*A chance for what? An affair if I get out of this Reich mess alive? That's all it could be.*"

"*She'll be grateful to settle for that. Ask me. I know.*"

"*And if I don't come out alive? She'll have nothing but half a memory of half a love.*"

Powell laughed. "Baby! What makes you think I'm in love with you that way? I'm not. I've never been."

"You are!"

"Look at me. Look at Mary. You're ages older, aren't you? Can't you understand?"

"*For God's sake, Pres!*"

"*Sorry, Mary. Got to use you.*"

"*I'm getting ready to say goodby, maybe for good. Isn't it bad enough for me already?*"

Barbara stared at Mary, then at Powell. She burst into tears and sobbed: "Oh, go away! Why don't you go away?"

"We're going away, Barbara," Mary said.

She took the girl's arm and led her to the door.

"There's a Jumper waiting, Mary."

"*There's me waiting, Pres. For you. Always. And the Chervils & @kins & Jordans &&&&—*"

"*I know. I love you all. Kisses. Blessings.*"

Image of four-leaf clover, rabbits' feet, horseshoes . . .

He stood in the doorway watching the Jumper disappear into the steel-blue sky toward Kingston Hospital. He was exhausted, a little proud of himself for having made the sacrifice, intensely ashamed of himself for feeling proud, clearly melancholic. Look at that great, foul city of fourteen and one half million souls and not one soul for him—

The first impulse came, a thin trickle of latent energy. He felt it distinctly and glanced at his watch. Ten-twenty. So soon? He'd better get ready.

He turned into the house and ran up the stairs to his dressing room. His psyche began to throb and vibrate as he reached out for those tiny streams of latent energy. He changed his clothes, dressed for all weather, and—

The energy came in torrents

now, a swirling sea of Mass Cathexis directed from each Esper, tuned to Powell.

He was out of the house, wandering through the streets, blind, deaf, senseless, immersed in that boiling mass of latent energy . . . like a ship with sails caught in the nexus of a typhoon, fighting to convert a whirlpool of wind into the motive power that would lead to safety. So Powell fought to absorb that fearful torrent, to Capitalize that latent energy, to Cathectize and direct it toward the Demolition of Reich before it was too late.

XVII

ABOLISH THE LABYRINTH.
DEMOLISH THE MAZE.
DISBAND:
(OPERATIONS, EXPRESSIONS, FACTORS, FRACTIONS, POWERS, EXPONENTS, RADICALS, IDENTITIES, EQUATIONS, PROGRESSIONS, VARIATIONS, PERMUTATIONS, DETERMINENTS AND SOLUTIONS)
ABOLISH:
(ELECTRON, PROTON, NEUTRON, MESON AND PHOTON)
DEMOLISH:
(CAYLEY, HENSON, LANGLEY, WRIGHT, TURN-BULL AND S&DERSON)
ANNUL:
(NEBULAE, CLUSTERS, STREAMS, BINARIES, GIANTS, MAIN SEQUENCE AND WHITE DWARFS)
EFFACE:
(OSTRACODERMS, PISCES, AMPHIBIA, BIRDS, MAMMALS AND MAN)
REVOKE.
RESCIND.
INFINITY EQUALS ZERO.
THERE IS NO—

"THERE is no what?" Reich shouted. He struggled upward, fighting the bedclothes and the restraining hands. "There is no what?!"

"No more nightmares," a girl said.

Reich opened his eyes. He was in a frilly bed with old-fashioned linen and blankets. Duffy Wyg&, starched and fresh, tried to thrust him back against the pillows.

"I was awake," he said somberly. "I heard . . . I don't know what I heard. Infinity and zero. Important things. Then I fell asleep here."

"Correction," Duffy smiled. "You're awake now."

"I'm asleep!" Reich shouted. "I've got to wake up, Duffy. I've got to get back to reality."

Duffy bent over him and kissed him hard on the mouth. "How about this? Real?"

"You don't understand. It's all been delusions. I've got to readjust before it's too late."

Duffy threw up her hands. "First that damned doctor scares you into a faint. Then he swears you're patched up . . . and now look at you. Psychotic!"

"Who scared me into a faint?"

"Rocky Martin. A doctor friend. In the square in front of police headquarters."

"And you brought me here?"

"Sure. It's the only way I could get you into my bed."

Reich burst into laughter. "Didn't you once ask to be dragged through the gutter, Duffy?"

"I thought I could meet a better class of people."

"You name the gutter and you can have it. You want a gutter from here to Mars? You'll have it! You want me to turn the System into a gutter? I'll do it!"

"Dear man. So modest and so hung-over."

"Drunk? Sure, I'm drunk." Reich thrust his legs out of the bed and stood up, reeling slightly. He put his arm around her waist for support. "Why shouldn't I be drunk? I've licked D'Courtney. I've licked Powell. I've got sixty years of owning every damned world ahead of me. How'd you like to start a dynasty with me, Duffy?"

"I wouldn't know how to go about starting dynasties."

"You start with Ben Reich. First you marry him. Then—"

"That's enough. When do I start?"

"Then you have children and you watch Ben Reich take over D'Courtney and merge it with Sacrament. You watch the enemies go down . . . like this!" Reich kicked the leg of a busty vanity table. It crashed. "Case and Umbrel on Venus. Eaten!" Reich brought his fists down on a torso-shaped side table and smashed it. "United Transaction on Mars. Mashed and eaten!" He crushed a delicate chair. "The GCI Combine on Ganymede, Callisto and Io . . . Titan Chemical & Atomics . . . And then the smaller lice: the Guild of Peepers, the moralists, the patriots . . . eaten!" He toppled a marble nude from its pedestal. It shattered.

"Clever up, Mr. Reich!" Duffy hung on his neck. "Why waste all that violence?"

He lifted her in his arms and shook her until she squealed. "Parts of the System will taste sweet . . . like you, Duffy. Parts will stink to high heaven . . . but I'll gobble them all." He laughed and crushed her against him. "We'll tear it all down, Duffy, and we'll build it all up to suit us. You and me and the dynasty."

He carried her to the window, tore away the drapes. Outside, the city was in velvet darkness. Only the skyways and streets twinkled with lights, and the scarlet eyes of an occasional Jumper popped up over the jet skyline.

"You out there!" Reich roared. "Can you hear me? All of you, sleeping and dreaming—you'll

dream my dreams from now on!"

He seized the sides of the window and poked his head far out into the night, twisting his neck to stare up. When he drew his head back into the room, his face wore a frustrated expression.

"I want to yell at the stars," he said. "They're not out tonight."

Duffy looked at him curiously. "The what are not out?"

"The stars. Look up at the sky. There's nothing but the Moon."

"That's the way it always is," Duffy said.

"It is not! Where are the stars?"

"What stars?"

"How the hell should I know their names? I'm not an astronomer. What's happened to the stars?"

"What are stars?" Duffy asked.

Reich seized her savagely. "Suns boiling and blazing with light. Thousands of them shining through the night. What the hell's the matter with you? Don't you understand?"

Duffy shook her head. Her face was terrified. "I don't know what you're talking about, Ben."

He shoved her away, went to the bathroom and locked himself in. While he was hurriedly bathing and dressing, he heard her calling Kingston Hospital on the phone, using a guarded voice.

"Let her start explaining about the stars," Reich muttered, halfway between anger and terror. He came out into the bedroom. Duffy cut the phone off hastily and turned to him. "Wait here for me," he growled. "I'm going to find out."

"Find out about what?"

"About the stars!" he yelled.

He rushed down to the street. On the empty footway, he paused and stared up again. There was the Moon. There was one brilliant red point of light . . . Mars. There was another . . . Jupiter. Nothing else. Blackness. It hung over his head, enigmatic, terrifying.

He began to run, still staring upward. He turned a corner of the footway and collided with a woman. He held her arm and pointed up. "Look! Do you see what I see? The stars are gone!"

"What's gone?"

"The stars. Don't you see? They're gone."

"I don't know what you're talkin' about, pilot. C'mon, let's have us a ball."

He tore himself away from her claws and ran. Halfway down the footway was a public phone alcove. He stepped in and dialed Information. The screen lit and a robot voice spoke: "Your question?"

"What's happened to the stars?" Reich asked. "When did it happen? It must have been noticed by now. What's the explanation?"

There was a click, a pause. "Will you spell the word, please?"

"Star!" Reich roared. "S-t-a-r. Star!"

"Noun or verb?"

"God damn you! Noun!"

"There is no information listed under that heading," the canned voice announced.

Reich swore, then fought to control himself. "Where's the nearest observatory?"

"The Lunar Observatory at Croton Park is situated thirty miles north. It may be reached by Jumper Route North Coordinate 227. The Lunar Observatory was endowed in the year two thousand—"

Reich slammed down the phone. "No information listed under that heading! Are they all crazy?" He ran out into the streets, searching for a Public Jumper. A cab cruised past and Reich signaled. It swooped to pick him up.

"Northco 227," he snapped as he stepped in. "The Lunar Observatory."

The cab jetted. Reich restrained himself for five minutes, then began casually: "Notice the sky?"

"Why, mister?"

"The stars are gone."

Sycophantic laugh.

"It's not supposed to be a joke," Reich said. "The stars are gone."

"If it ain't a joke, it needs explaining," the driver said. "What the hell are stars?"

Before Reich could erupt, the cab landed him on the observatory grounds. He snapped, "Wait for me," and ran across the lawn.

He entered and heard the low whine of the dome mechanism and the quiet click of the observatory clock. Except for the low glow of the clock-light, the room was in darkness. He could see the observer, a dim outline crouched over the eyepiece of the telescope.

"Listen," Reich said in a low voice. "Sorry to bother you, but you must have noticed. What's happened? Where are the stars?"

The figure straightened slowly and turned toward Reich. "There are no stars," it said.

The Man With No Face!

REICH flew out of the door, down the steps and across the lawn to the waiting cab. He blundered against the crystal cabin wall and fell flat.

The driver pulled him to his feet. "You all right, Mac?"

"I don't know," Reich groaned.

"None of my business, but I think you ought to see a peeper."

Reich gripped the man. "I'm Ben Reich of Sacrament."

"I recognized you."

"Good. You know what I can do for you if you do me a favor? Money, new job, anything you want . . ."

"You can't do anything for me, Mac. I already been adjusted at Kingston."

"Better. An honest man. Will

you do me an important favor?"

"Sure, Mac."

"Go into that building. Take a look at the man behind the telescope. A good look. Come back and describe him to me."

The driver departed, was gone five minutes, then returned and reported: "Sixtyish. Bald. Got lines in his face kinda deep. His ears stick out and he's got what they call a weak chin."

"It's nobody . . . nobody," Reich muttered.

"What?"

"About the stars," Reich said. "You never heard of them? You never saw them? You don't know what I'm talking about?"

"Now don't get overdriven, Mac. Tell you something. They taught me plenty up at Kingston, like sometimes you get a crazy notion. For instance, that people always had one eye and now all of a sudden they got two."

Reich stared at him.

"So you run around yellin': 'Where did they all of a sudden get two eyes?' And they say: 'We always got two eyes.' And you say: 'The hell we did. I distinctly remember everybody got one eye.' And, by God, you believe it and they have a hell of a time knockin' the notion outa you." The driver thumped him firmly. "Seems to me, Mac, like you're on a one-eye kick."

"One eye," Reich repeated. "Two eyes. Tension, apprehension and dissension have begun."

"What?"

"I've had a rough time the last month. Maybe you're right."

"You want to stay here and mope about stars?"

"What do I care about stars! I've got the world. What do I care if a few delusions go with it?"

"That's the way, Mac. Where to?"

"The Royal Palace!"

"The which?"

Reich laughed. "S nt," he said, and laughed all the flight through the dawn to Sacrament's soaring tower.

THE night staff was in the last drowsy stages of the 12-8 shift when Reich bustled in. As Reich went to his desk, he was followed by secretaries and subsecretaries carrying the urgent agenda of the day.

"Let all that wait," he ordered. "Call in all department heads and organizational supervisors. I'm going to make an announcement."

This was the only reality . . . the annunciator bells, the muted commands, the quick filling of his office with so many awed faces. All this was a preview of the future, when bells would ring on planets and satellites, and world supervisors would scuttle to his desk with awe on their faces.

"As you all know," Reich be-

gan, "we of Sacrament have been battling the D'Courtney Cartel until Craye D'Courtney was killed. The road is open for us now. We can commence operation of Plan AA to take over the D'Courtney Cartel."

He paused, waiting for the excited murmur that should respond to his announcement. There was no response.

"Perhaps," he said, "some of you do not comprehend the size and importance of the job. Those of you that are city supervisors will become continental supervisors. Continental supervisors will become satellite chiefs. Present satellite chiefs will become planetary chiefs. From now on, Sacrament will dominate the Solar System. From now on, all of us must think in terms of the Solar System."

Reich faltered, alarmed by the blank looks. He singled out the chief secretary. "What the hell's the matter? Bad news I haven't heard yet?"

"N-no, Mr. Reich."

"Then what's frabbing you? This is something we've all been waiting for. What's wrong with it?"

"I've n-never heard of the organization, Mr. Reich. I . . . We . . ." The chief secretary turned around for support. Before Reich's unbelieving eyes, the entire staff shook their heads in mystification.

"D'Courtney on Mars!" Reich shouted.

"On where, sir?"

"One of the ten planets. Fourth from the Sun. Mercury, Venus, Earth, Mars! A hundred and forty-one million miles from the Sun! Mars!"

They backed away slightly from Reich. He darted at the secretaries and tore the business papers from their hands. "You've got information about D'Courtney on Mars there. My God, we've been fighting D'Courtney for the last ten years!"

He clawed through the papers. There was not one reference to D'Courtney or Mars. There was no reference to Venus, Jupiter, the Moon, the other satellites.

"I've got memos in my desk," Reich shouted. "Hundreds of them! You're pulling something on me . . ."

He yanked out desk drawers. There was a stunning explosion. Fragments of flying wood slashed the staff, and Reich was hurled back against the window.

"The Man With No Face!" Reich cried. He shook his head feverishly, and clung to the first problem. "Where are the files? I'll show you in the files . . . D'Courtney and Mars and all the rest. And I'll show the Man With No Face, too."

He burst into the file vaults, tore out rack after rack, scattering papers, clusters of piezo

crystals, microfilm, molecular transcripts. There was no reference to D'Courtney or Mars, none to Venus, Jupiter, Mercury, the asteroids, the satellites.

Three burly gentlemen from Relations came trotting into the vaults.

"Easy now, Mr. Reich," one said. "Easy . . ."

"Get away from me!"

"Easy. It's all right, sir."

They deployed strategically while the hustle and the bustle increased and the bells sounded and voices far off called: "Get his doctor." "Somebody call Kingston." "Did you notify the police?" "No, don't. No scandal." "Get Legal!" "Isn't the Infirmary open yet?"

Reich overturned files in the path of the burly gentlemen, raced through the office to the outside corridor and the Vertical Pneumatique, where he punched 57. The door opened. He stepped into space and felt the circular steel plate snap again his soles and then drop him to the 57th floor.

The Sacrament laboratory was in darkness. Still breathing heavily, he staggered to the lab library, snapped on the lights and went to the reference alcove. A sheet of frosted crystal, slanted like a drawing board, was set before a desk chair. There was a complicated panel of control buttons alongside it.

Reich seated himself and punched READY. The crystal lit up and a canned voice spoke from an overhead speaker: "Class?" Reich punched SCIENCE. "Section?" Reich punched ASTRONOMY. "Your question?"

"The Universe."

"The term universe in its complete physical sense applies to all matter in existence."

"What matter is in existence?"

"Matter is gathered into aggregates ranging in size from the smallest atom to the largest collection of matter known to astronomers."

"What is the largest collection of matter known to astronomers?" Reich punched DIAGRAM.

"The Sun." The crystal plate displayed a dazzling picture of the Sun in speed-up action.

"But what about the others? The stars?"

"There are no stars."

"The planets?"

"There are no planets."

"The Moon?"

"There is no Moon."

Reich took a deep, trembling breath. "We'll try it again. Go back to the Sun."

The Sun appeared again in the crystal. "The Sun is the largest collection of matter known to astronomers," the canned voice began. Suddenly it stopped. The picture began to fade slowly. The voice spoke. "There is no Sun."

The model disappeared, leav-

ing behind it an after-image that looked up at Reich . . . looming, silent, horrible . . . The Man With No Face.

Reich picked up the chair and smashed it down on that frightful image. He blundered out of the library into the corridor. At the Vertical Pneumatique, he punched STREET. The door opened, he staggered in, was dropped 57 stories to the Main Hall of Sacrament Tower.

It was filled with early workers hurrying to their offices. As Reich pushed past them, he caught the astonished glances at his cut and bleeding face. Then he was aware of a dozen uniformed Sacrament guards closing in on him. He ran down the hall, slipped into the revolving doors and whirled through to the footway. There he jerked to a stop as though he had run into white-hot iron.

The street lights were lit; the skyways twinkled; Jumper eyes floated up and down; the shops were blazing . . . and overhead there was nothing but a deep, black fathomless infinity.

"The Sun! Where's the Sun?"

Then the first of the guards came through the revolving door and he sprinted through an arcade of brilliant, busy shops. Beyond the arcade was the entrance of a Vertical Pneumatique to the skyway. Reich leaped in, was lofted 70 stories.

There was a small car park shelved onto the face of Sacrament Tower, with a ramp leading into the skyway. Reich flung sovereigns to the attendant and got into a car. He pressed GO. The car went. At the foot of the runway, he pressed LEFT. The car turned left and continued. That was all the control he had—left, right; stop, go. The rest was automatic. Moreover, cars were strictly limited to the skyways. He might spend hours racing in circles high over the city.

He glanced alternately over his shoulder and up at the sky. There was no Sun . . . and they went about their business as though there had never been any. He shuddered. Was this more of the one-eye kick?

Suddenly the car slowed and stopped. He was marooned in the middle of the skyway, halfway between Sacrament Tower and the Chanin Building.

Reich hammered on the control studs. There was no response. He leaped out and raised the tail hood to inspect the pickup. Then he saw the guards far down the skyway, running toward him, and he understood. These cars were powered by broadcast energy. They'd cut the broadcast off at the car park and were coming after him.

Reich stumbled toward the Chanin Building. The skyway tunneled through the building and was lined with shops, res-

taurants, a Panty theater—and there was a travel office! He could grab a ticket, get into a one-man capsule and have himself slotted to any of the takeoff fields. He needed a little time to reorganize and he had a house in Paris.

He leaped across the center island, dodged past cars and ran into the office. It looked like a miniature bank. A short counter. A grilled window protected by burglar-proof plastic. Reich slapped gold coins down on the counter.

"Ticket to Paris," he said. "Keep the change."

"There is no such place," came the reply.

Reich stared through the cloudy plastic and saw . . . looking, looming, silent . . . the Man With No Face.

Skull pounding, he ran blindly on to the skyway, shied feebly from an oncoming car, and was struck down into enveloping darkness—

ABOLISH:
(MINERALOGY, PETROLOGY, GEOLOGY and PHYSIOGRAPHY)
EXPUNGE:
(METEOROLOGY, HYDROLOGY and SEISMOLOGY)
ERASE:
(PALEONTOLOGY, STRATIGRAPHY and PALEOGEOGRAPHY)
ANNUL . . .

A hand was placed over his mouth. Reich opened his eyes. He was in a small tiled room, an emergency police station. He was lying on a white examination table. Around him were the guards, three uniformed police, unidentified strangers.

The stranger removed his hand from Reich's mouth. "It's all right," he said gently. "I'm a doctor."

"Are you a peeper? I need a peeper. I need somebody inside my head to prove I'm right."

"What's he want?" a policeman asked.

"I don't know. He said a peeper." The doctor turned back to Reich. "What's a peeper?"

"An Esper. A mind reader. A—"

The doctor smiled. "Show of high spirits. Many patients do that after accidents. We call it gallows humor . . ."

"Listen," Reich said desperately. "My name is Reich. Ben Reich of Sacrament. You know me. I want to confess. Take me to Preston Powell."

"Who's Powell?"

"What do you want to confess?"

"I murdered Craye D'Courtney last month. In Maria Beaumont's house. I want to tell Powell."

The police looked at each other in surprise. One of them drifted to a corner and picked up an old-fashioned hand phone: "Captain?

Got a character here. Calls himseld Ben Reich of Sacrament. Claims he killed a party named Craye D'Courtney last month." After a pause, he grunted and hung up. "A nut," he said.

"Listen—" Reich began.

"Is he all right?" the policeman asked the doctor.

"Just shaken a little."

"Listen!" Reich shouted.

The policeman yanked him to his feet and propelled him toward the door of the station. "There ain't no Preston Powell on the force. There ain't no D'Courtney killing on the books. Now, out!" And he hurled Reich into the street.

Reich stumbled, then regained his balance and stood still, numb, lost. A few street lights were lit. The skyways were extinguished. There were great gaps shorn in the skyline.

He began to lurch down the broken streets with arms clutching his belly.

"Cab!" he yelled. "Taxicab!" Jumper! Where is everything? Cab!"

There was nothing.

"Isn't there anybody can hear me? I'm sick. I need help . . . Got to get home."

There was nothing.

He moaned again. Then he tittered, weakly, inanely. He sang in a defiant voice: "Eight, sir, five, sir, one, sir! Tenser, said tensor . . . tension, 'prehension,

'sension have b-begun!"

He gripped T8's shaking elbow and marched him through Beaumont House. As he walked he called plaintively: "Hey, where is everybody? Maria!"

T8 emitted a hysterical sob. Reich shook him roughly. "Play up! We'll be out of here in five minutes. Then you can start worrying."

"If they find the body before we leave, we're sunk."

"Who'll find the body?"

"The guards."

"They've been ionized."

"Servants."

"They won't leave the kitchens till the Sardine game is over. I

tell you we'll be safe in five minutes."

"But if we're trapped here, we won't be able to get the girl. We'll—"

"We won't be trapped." Reich pushed open the door of the projection room. "Hey, where is everybody?"

No answer.

There was no door, no projection room. He was standing at 9 Park South, looking for the Beaumont Mansion, the site of D'Courtney's death . . . and Maria Beaumont, shrill, decadent, reassuring.

There was a black tundra. Unfamiliar desolation. Nothing.

"For God's sake!" he cried. "Where is everything? Stop this crazy Sardine game! Bring it all back! Fill up the empty space!"

From far across the desolation, a figure approached . . . looking, looming, silent. The Man With No Face. Reich watched it approach, paralyzed.

Then the shadowy figure spoke: "There is no space. There is nothing."

The screaming in Reich's ears was his voice, and the hammering was his heart. He was running, running down a yawning alien path, devoid of life, devoid of space, running while there was still time, time, time—

He ran headlong into a figure of black shadows. A figure without a face. A figure that said: "There is no time. There is nothing."

Reich backed away. He turned. He fell. He crawled feebly through eternal emptiness, shrieking: "Powell! Duffy! Hassop! Quizzard! T8! Church! Where is everybody? Where is everything? For the love of God!"

And he was face to face with the Man With No Face, who said: "There is no God. There is nothing except you and me."

Reich raised his eyes and stared deep into the face of his deadly enemy, the man he could not escape, the terror of his nightmares, the destroyer of his existence.

It was—

Himself.

D'Courtney.

Both.

Two faces, blending into one. Ben D'Courtney. Craye Reich. D'Courtney-Reich.

He could make no sound. He could make no move. There was neither time nor space nor matter. There was nothing left but dying thought.

"Father?"

"Son."

"You are me?"

"We are us."

"I don't understand. What's happened?"

"You lost the game, Ben."

"The Sardine Game?"

"The Cosmic Game."

"I won. I owned every bit of the world."

"And therefore you lose. We lose."

"Lose what?"

"Survival."

"I can't understand!"

"My part of us understands, Ben. You would understand, too, if you hadn't driven me from you."

"How did I drive you from me?"

"With every corruption in you."

"You say that, you betrayer?"

"That was without passion, Ben. That was to destroy you before you could destroy us, to help you lose the world and win the game."

"What game? What Cosmic Game?"

"The maze. The labyrinth. The galaxies, the stars, the Sun, the planets, the moons . . . that was the problem box we were to solve. We were the only reality. All the rest was make-believe, toys for us to play with, dolls, puppets, stage-settings, pretended passions. It was a make-believe reality for us to solve."

"I conquered it. I owned it."

"And you failed to solve it. I don't know what the solution is, but it's not theft, terror, hatred, lust, murder, rapine. You failed, and it's all been abolished, de-

molished, disbanded . . ."

"*Then what's to become of us?*"

"*We're disbanded too.*"

"*Why? Who are we? What are we?*"

"*Did the seed from our make-believe universe know who or what it was when it did not find fertile soil and failed nature's survival test? Did the dying sperm know who or what it was when it failed to find the egg? Does it matter who or what we are? We have failed. We are ended.*"

"*But we did exist!*"

"*Perhaps if we had solved it, Ben, it might have remained real, and all that we knew and loved might be with us still. But it is ended. Reality has turned into might-have-been, and you have awakened at last . . . to nothing.*"

"*We'll go back! We'll try it again!*"

"*There is no going back. It is ended.*"

"*We'll find a way. There must be something . . .*"

"*There is nothing. It is ended.*"

"*Is this death?*"

"*How can there be death when there never was life? It is ended. We are merging, fading, disappearing. It is—*"

Ended.

XVIII

THEY found the two men next morning, in the gardens overlooking the old Harlem Canal. Powell was seated cross-legged on the wet turf, his face shriveled, his respiration almost gone, his pulse almost faded. Reich was curled into a tight fetal ball, completely catatonic.

They rushed Powell to his home on Hudson Ramp, where the entire Guild Lab team first sweated over him and then congratulated themselves on the first successful Mass Cathexis Measure in the history of the Esper Guild. There was no hurry for Reich. In due course and with proper procedure, his inert body was transported to Kingston Hospital.

Eight days later, Powell arose, bathed, dressed, successfully defeated his nurses in single combat and left the house. He made one stop at *Sucre et Cie.*, emerged with a parcel and then proceeded to headquarters to make his personal report to Commissioner Crabbe.

On the way up, he poked his head into $$on's office.

"*Hi Chas. Did Peetcy back us up on the D'Courtney murder motive?*"

"*Lock, stock & barrel. Trial took one hour. Reich's going through Demolition now.*"

"*That's nice. I'd better go up now and s-p-e-l-l it out for Crabbe.*"

"*What you got under your arm?*"

"*Present.*"

"*For Crabbe?*"

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"The kind I'd give him are against the law."

"See you."

Powell went up to Crabbe's ebony and silver office. Crabbe was properly solicitous, but stiff. The D'Courtney case had not improved his bitter relations with Powell.

"Conviction," he said belligerently. "Damned if I see proper evidence."

"It was a remarkably complex case, sir," Powell replied tactfully. "None of us could understand it. Even Reich himself was not aware of why he had murdered D'Courtney. The only one who grasped the case was the Prosecution Transistor Computor."

"Peetcy did? How?"

"When we ran our final data through the first time, Peetcy told us that the 'passion motive' was insufficiently documented. We'd all been assuming profit motive. So had Reich.That was his conscious camouflage for the real passion motive. It couldn't hold up as evidence because he offered merger to D'Courtney — and D'Courtney accepted! Reich misunderstood the message. He had to. He had to go on believing he murdered D'Courtney for money."

"Why?"

"Because he couldn't face the real motive . . ."

"Which was?"

"D'Courtney was his father."

"What!" Crabbe stared. "His father? His flesh and blood?"

"Yes, sir. It was all there before us. We just couldn't see it . . . because Reich himself couldn't see it. That estate on Callisto, for instance, the one Reich used to lure Dr. ¼maine off the planet—Reich inherited it from his mother, who'd receive it from D'Courtney. We all assumed Reich's father had chiseled it out of D'Courtney in some kind of transaction and placed it in his wife's name. We were wrong. D'Courtney had given it to Reich's mother because it was his love-gift to the mother of his child."

Crabbe opened his mouth, then closed it.

"And there were other signposts. D'Courtney's suicide drive, produced by intense guilt sensations of desertion. He had abandoned his son. It was tearing him apart. Now add Barbara D'Courtney's half-twin image of herself and Ben Reich. Somehow she felt they were half-brother and sister. Reich's inability to kill Barbara—he knew it, too, deep in his unconscious. He wanted to destroy the hateful father who had rejected him, but he could not bring himself to harm his sister."

"When did you unearth all this?"

"When Reich attacked me for

setting those boobytraps."

"Damn it, Powell, someone had to set them! If you didn't, who did?"

"Reich himself, sir."

"Reich!"

"He murdered his father, which discharged his hatred. But his conscience could not permit him to go unpunished for such a horrible crime. Since the police apparently were unable to punish him, his conscience took over. That was the meaning of Reich's nightmare image."

"The Man With No Face?"

"Yes, Commissioner. It was the symbol of Reich's real relationship to D'Courtney. It had no face because Reich could not accept the truth. It was first the threat of punishment for what he contemplated. Then it became the punishment itself for the murder."

"The boobytraps?"

"Exactly. Reich set those traps for himself without ever realizing it . . . in brief departures from conscious reality. The tricks of the unconscious are fantastic."

"But if Reich himself knew none of this, how did you get at it, Powell?"

"We used the Mass Cathexis Measure, sir. It's difficult to explain, but I'll do my best. Every human being has a psyche composed of latent and capitalized energy. Latent energy is our reserve . . . the untapped natural resources of our mind. Capitalized energy is that latent energy which we call up and put to work. Most of us use only a small portion of our latent energy."

"I understand."

"When the Esper Guild uses the Mass Cathexis Measure, every Esper opens his psyche, so to speak, and contributes his latent energy to a pool. One Esper alone taps this pool and becomes the canal for the latent energy. He capitalizes it and puts it to work. He can accomplish tremendous things . . . if he can control it. It's a difficult and dangerous operation. About on a par with jetting to the Moon with a stick of dynamite—er—riding on dynamite sticks."

Suddenly Crabbe grinned. "I wish I were a peeper," he said. "I'd like to get the real image in your mind."

"You've got it already, sir." Powell grinned back. An *entente cordial* had been established between them for the first time. "It was necessary," Powell continued, "to bring Reich face to face with the Man With No Face. We had to make him see the truth before we could get the truth. Using the pool of latent energy, I built a common neurotic concept for Reich . . . the illusion that he alone in the world was real."

"Why, I've often—is that common?"

"One of the run-of-the-mill es-

cape patterns. When life gets tough for you, you take refuge in the idea that it's all a giant hoax. Reich had the seeds of that in him already. I simply forced them. I tore it all down and I very nearly tore myself apart doing it . . . but I left Reich alone in nothingness with the Man With No Face. Then, because there was nowhere else to look, he looked into the face and saw himself and his father. Once we had that, we had everything we needed."

Powell picked up his parcel and arose. Crabbe jumped up and escorted him to the door with a friendly hand on his shoulder.

"You've done a phenomenal job, Powell. Really phenomenal. All I can say is that it must be a wonderful thing to be an Esper. You must all be very happy."

Powell paused at the door. "Would you be happy to live your life in a hospital, Commissioner?"

"A hospital?"

"That's where we Espers live . . . all of us. In the psychiatric ward. Without escape, without refuge. Be grateful you're not a peeper, sir. Be grateful that you see only the outward man. Be grateful that you never see the passions, the hatreds, the jealousies, the malice, the sicknesses. The world will be a wonderful place when everyone's a peeper and properly adjusted. But until then, be grateful you're blind."

He left headquarters, hired a Jumper and was jetted north toward Kingston Hospital. He sat in the cabin with the parcel on his knees, gazing down at the magnificent Hudson valley.

Kingston Hospital came into view, acre upon rolling acre of magnificent landscaping, solariums, pools, lawns, athletic fields, dormitories, clinics, all in exquisite neo-classic design. As the Jumper descended, Powell could make out the figures of patients and attendants, bronzed, active, laughing, playing.

He checked in at the Visitors Office, found Barbara D'Courtney's location and started across the grounds. He was weak, but felt impelled to leap hedges, vault gates, run races. He had awakened from his siege with Reich with a sudden knowledge that exhilarated him. It was a fact always known to him, he realized, but deliberately concealed by his sense of responsibility.

"I really have got too damned much super-ego," he grumbled. "It takes itself so seriously."

They saw each other at the same moment, across a broad stretch of lawn flanked by fieldstone terraces and brilliant rock-gardens. She flew toward him, waving, and he ran toward her. Then, as they approached, both were stricken with shyness. They stopped a few feet apart, not

daring to look at each other.

"Hello."

"Hello, Barbara." He paused. "Let's get into the shade."

They turned toward the terrace wall. Powell glanced at her from the corner of his eye. She was alive as he had never seen her. And the urchin expression in her face—the expression that he had imagined was a phase of her *Deja Eprouve* development—was still there. She looked inexpressibly mischievous, high-spirited, fascinating. But she was adult. He did not know her.

"I'm being discharged this evening," Barbara said.

"I know."

They sat down on a stone bench. She looked at him with grave eyes. "I want to tell you how grateful I am."

"Please, Barbara. You're making me uncomfortable."

"Am I?"

"I knew you so intimately as—well, as a child. Now—"

"Now I'm grown up again."

"Yes."

"You must get to know me better. Shall we say tea tomorrow at five? Informal."

"Listen," Powell said desperately. "I helped dress you more than once. And comb your hair. And brush your teeth."

She waved her hand airily.

"You liked fish, but you hated lamb. You hit me in the eye with a chop."

"That was ages ago, Mr. Powell."

"That was two weeks ago, Miss D'Courtney."

She arose with magnificent poise. "Really, Mr. Powell! If you feel impelled to cast chronographical aspersions . . ." She stopped and looked at him. The urchin appeared again in her face. "Chronographical?" she inquired.

He dropped the parcel and caught her in his arms.

"Mr. Powell," she murmured. "Hello, Mr. Powell."

"My God, Barbara — Baba, dear. For a moment I thought you meant it."

"I was paying you back for being grown up."

"You always were a vindictive kid."

"You always were a mean daddy." She leaned back and looked at him. "Mary Noyes told me. Everything."

"Oh. She did?"

Barbara nodded. "She was right. I'll settle for anything."

He laughed, the exhilaration bubbling vibrantly from him. "You won't have to settle for anything. Sit down. I want to ask you something."

She sat down.

On his lap.

"I have to go back to that night," he said.

"In Beaumont House?"

He nodded.

"It's not easy to talk about,"

under his arm. "This, for example, would have been called gushing sentimentally over an outlaw of society."

Jeems watched silently, sympathetically, as Powell held out the package to what was left of Reich. "It's a present for you, Ben. Take it." The creature glowered at Powell and then at the box. At last the clumsy hands took the gift, tore away the wrappings, scooped up a handful of *Sucre et Cie.'s* magnificent candies and stuffed them into the lax mouth.

"He's done all right in the gift department," Jeems said, nodding at the flowers, piezo crystal recordings, pieces of sculpture, a cage of small, active animals from Venus, and exotic Ampro plants that covered the tables and shelves in the room.

"From Commissioner Crabbe, old T-H himself, Dr. Wilson ¼maine," said Powell, reading the cards. He paused at one. "Jeremy Church, too. After the way Church hated Reich for getting him expelled from the Esper Guild . . . damn it, Johnny, it's hard to believe, isn't it?"

"No," Jeems said. "Why should it be? A criminal is a sick person. Naturally you put him in the hospital and send him gifts. How else should any criminal be treated?"

"How else indeed?" Powell repeated gently.

Out of the chaos in Reich's stripped mind came a fragment of thought: "Powell—peeper—Powell—friend . . ."

It was so sudden, so unexpected, so passionately grateful that Powell gripped Reich's shoulder and tried to smile, then had to turn and hurry out toward the pavilion and Barbara.

One ill mind had been rescued. There had been fear and frustration, danger to the Solar System and to Powell and Barbara and to Reich himself, death for an old, guilt-ridden man too tired to live. But one sick personality had been saved. Some day it would be the entire human race. Until then, the Espers had to nurse and guard and guide a world that was diseased with psychic blindness.

Was it worth it?

Yes, Powell decided without hesitation, it was.

—ALFRED BESTER

She put her head on his shoulder at last, shaken, yet somehow at peace. Then the urchin smile came to her face as she glanced at the package he had put down on the bench beside him.

"A present?" she wheedled. "For Baba?"

He stood up, suddenly remembering. "No, of course not. It's for someone who needs it a good deal more." He took her chin in his hand and kissed her again. "Run back to your pavilion and wait for me. There's somebody I've got to see. I'll be along soon . . . to take you home."

She scampered off across the lawn, dangerously looking back at him instead of where she was going. Powell watched her go, partly to make sure she didn't crash into anything, mostly to feel the warmth of her love washing over his mind. Then he went to the Demolition Section of Kingston Hospital.

When a man was Demolished at Kingston, his entire psyche was destroyed. The series of osmotic injections began with the topmost strata of cortical synapses and slowly worked down, switching off every circuit, extinguishing every memory, destroying every particle of the pattern that had been built up since birth.

But this was not the pain nor the dread of Demolition. The horror lay in the fact that the consciousness was never lost; that as the psyche was wiped out, the mind was aware of the slow, backward death, until at last it, too, disappeared and awaited the rebirth. It was an eternity of farewells . . . an agonizing funeral of oneself. And as Powell stood alongside Ben Reich's bed, he saw the awareness, the pain, the despair in those blinking, twitching eyes.

Dr. Johnny Jeems put his hand on Reich's arm. "He's a lusty lad. We have great hopes for him."

Reich squalled and writhed.

"How's the treatment coming?" Powell asked anxiously.

"Wonderful. Ought to be ready for rebirth in a year."

"He's a great guy. We need men like him. It would have been a shame to lose Ben Reich."

"Lose him?" Jeems repeated in astonishment. "How?"

"Three or four hundred years ago, Johnny, cops caught people like Reich to kill them. Capital punishment, they called it."

"It doesn't make sense, a man who's got the talent and guts to buck society obviously is valuable potentially. If you don't straighten him out and turn him into a plus value—hell, it would be a criminal human waste!"

"They were pretty good at criminal human waste in those days," Powell said. He took the beautifully wrapped package from

she whispered miserably.

"It won't take a minute. You were lying in bed, asleep. Suddenly you woke up and rushed into the Orchid room. You remember the rest . . ."

"I remember."

"One question. What was the cry that woke you?"

"You know."

"I want you to say it. Say it out loud."

"Do you think it's—it's going to send me into hysteria again?"

"Say it."

After a long pause, she said in a low voice, "Help, Barbara," and waited in fear. Nothing happened. She relaxed, though afraid.

"Who shouted that?"

"My father, of course."

"He couldn't shout, Barbara. His throat was gone. Cancer. He could barely whisper."

"But I heard him!"

"You peeped him."

She stared.

"You peeped him," Powell repeated gently. "Your father cried out on the telepathic level. You heard him. There was no other way you could have heard him except telepathically."

"But that would mean I'm an Esper," she objected. "I'm not one at all."

"In spite of proof that you are?"

"It's just your opinion," she said insistently. "Maybe just a hope."

"Do you love me?" Powell shot at her.

"I love you, of course," she answered, "but I think you're inventing excuses to—"

"Who asked you?"

"Asked me what?"

"If you loved me."

"Why, you just—"

"I didn't say anything," he told her quietly. "I thought my question; you peeped me. You were unconsciously peeping Mary and me all the while you were in my house. You peeped Reich when he came there to set a boobytrap for me. Don't you understand now, Barbara?"

"Oh, if it were only true!"

"It is, darling. You won't have to settle for anything short of us. You're a latent Esper. You'll be trained, of course . . . as a Guild member and my wife. You heard me, didn't you?"

"Yes, Preston," she whispered.

"One of the first things you'll learn is that words aren't necessary," he said. "Now, for example."

Their kiss was long and deep, but not a fraction as urgent and hungry as the need they read clearly in each other. This, he let her realize without words, while their lips were still together, was why an Esper could love only another Esper . . . and why Esper love was to deaf-mute love as animal instinct was to human reasoning.

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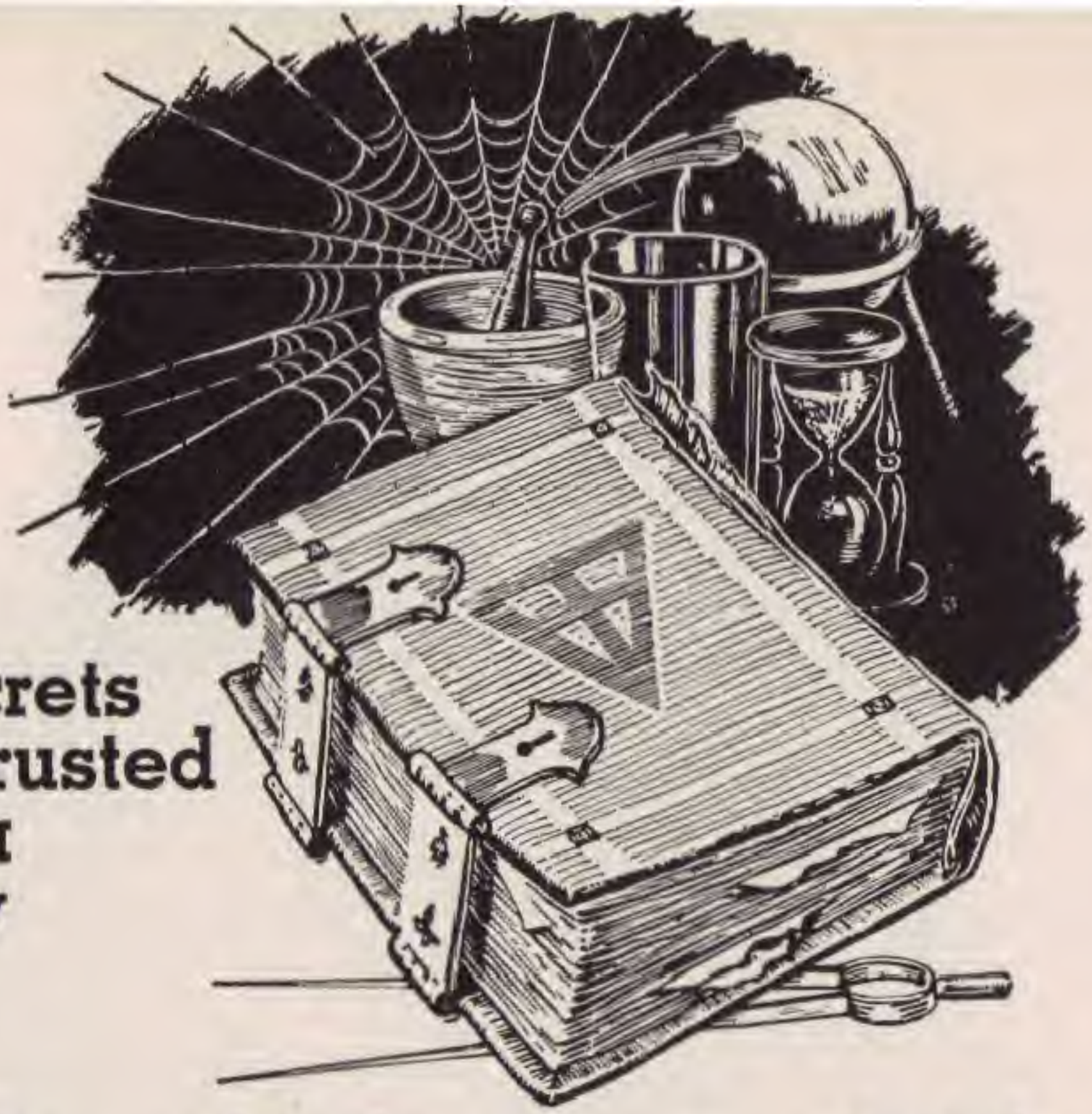

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