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*by Keith Laumer*



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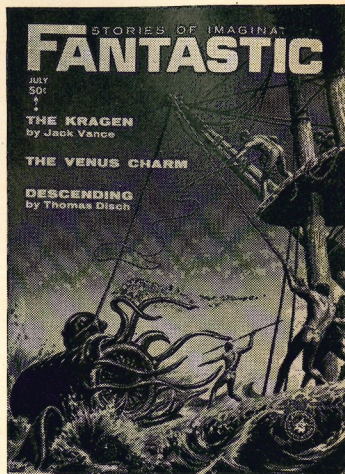
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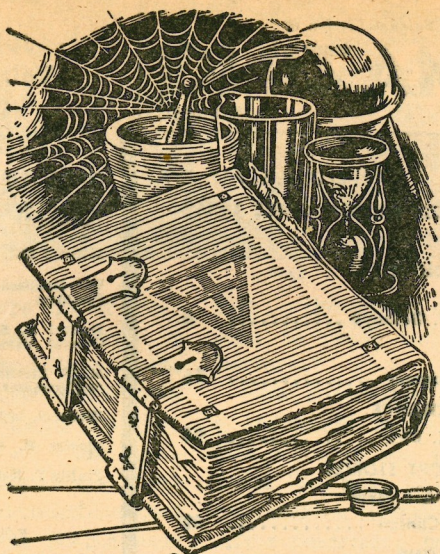
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JULY, 1964  
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REG. U. S. PAT. OFF.

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# editorial

PERHAPS we are one of those people doomed forever to maunder about the plight of the underdog, but a few items we've read recently set us to thinking. The first group of items concerned the tests which are being planned for the biosatellites that will be launched by NASA next year to test the effects of space and alien environments on the human body.

Many of these problems—weightlessness, radiation, the loss of calcium—are already well-known. Some are not so. For example, will man's heart muscle degenerate from disuse in free fall and then fail under the stress of planetary landings? Will long-term absence of sensation in the equilibrium-maintaining machinery of the inner ear (which provides a constant flow of self-correcting data to the brain) have a deleterious effect on thinking? Will sensory deprivation in the black silence of space have undesirable effects on the brain? Will weightlessness have any ef-

fect on the ability of white blood cells to reach out and combat bacteria?

Now, contrast all this care with a statement made by our own Ben Bova in his article in this issue (see page 83) on planetary engineering techniques for Mars. After describing how it may be possible to change the environment of Mars so that it will be able to sustain human life, he blandly and parenthetically adds that, of course, having changed Mars, we will "enclose the native life in domes" so that *it* can continue to function.

There's something there that is too hard for us to swallow. By what stretch of any imagination do we have a right to take a planet away from its inhabitants and change it to *our* needs and likes? How condescending to toss up a dome so that the "native" life can continue to exist! Some of our confreres in the field would probably have no qualms about this at all. After all, they might

(Continued on page 48)

# MINDMATE

By DANIEL F. GALOUYE

Illustrated by EMSH

*Today, politics sometimes makes strange bedfellows. Tomorrow, the struggle for power may make strange brainfellows.*



**I**NSISTENT in its shrill summons, the videophone bell jarred Warren Sharp awake. Swearing, he reached out to the night table and switched on the instrument. A blaze of kinescopic light assailed his eyes and he squinted as the anxious face came into focus.

"You ready, Sharp?" the man on the screen demanded.

"Hell, Adler, I've been ready for a month."

"Good. Everything's in place.

Infield says to get your butt down to the clinic on the double."

"You've got Winston?"

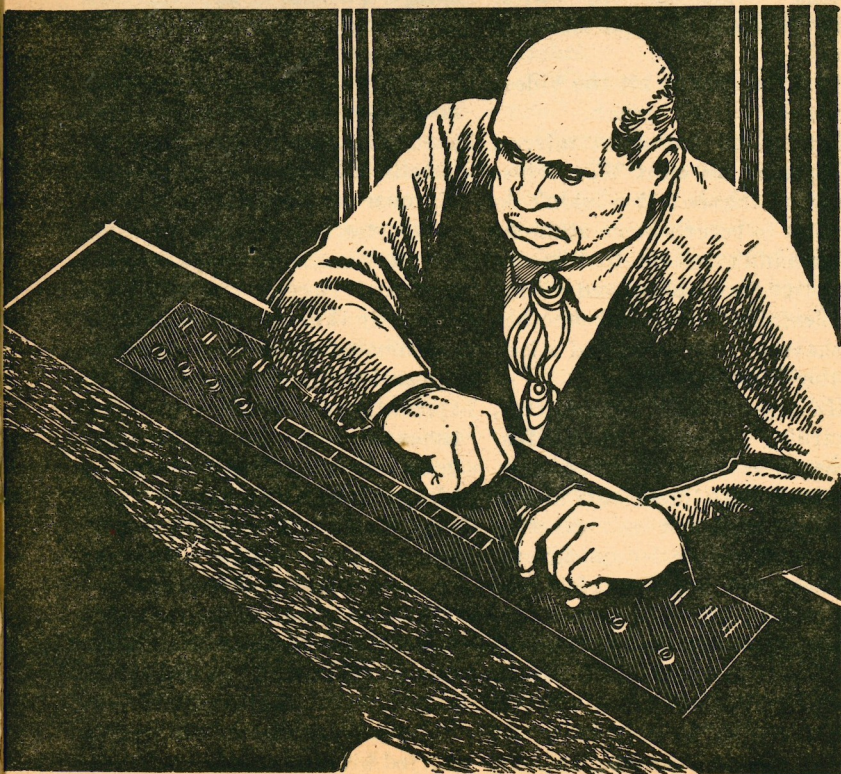
"Snatched him half an hour ago. He put up a hell of a fight."

"I'll be there in thirty minutes."

"Make it fifteen. We don't have much time to lose. Winston's just supposed to be out for a short walk."

Sharp swung his legs over the side of the bed.

"This is payoff night," Adler



reminded. "So hurry it up, *Congressman.*"

Sharp glanced up, a shoe dangling from his hand.

"Get used to it. That's who you'll be from now on—Representative Ronald L. Winston, Thirty-Fourth Illinois Congressional District."

Sharp tied his shoe laces with a brisk, thorough motion.

The coarse face grinned from the screen. "And if *I* were Winston, I'd burn up the vac-tube getting home to my wife. Damned if she isn't the classiest broad—"

Annoyed, Sharp hit the video-phone disconnect switch.

Before the bathroom mirror, he kneaded his chin. Was Winston clean shaven? It wouldn't do for him to return home stubbled if he hadn't left in that condition. But Sharp shrugged off the problem. He would know whether to shave as soon as he had a look at the Congressman.

He lingered before the mirror, regarding Winston's strong features—*his own* features now. But they were lineaments he had acquired through an exacting process of surgical duplication.

There was the scar, rising up out of his right eyebrow and undulating across the furrows of his forehead—Winston's Purple Heart credential. And his mouth still felt alien as a result of its recent braces, dental implants,

fillings and filings that had made his dentition identical to the Congressman's.

General physical similarity between him and Winston had, of course, served as the point of departure for physiological reconstruction. To that foundation had been added permanent hair recoloration, orthodontic correction in order to simulate an exact chin-jaw angle, duplication of minor skin irregularities, removal of scar tissue from a shrapnel wound in his back, even permanent remodeling of the whorls of his fingertips.

All that remained to be done now was to reproduce Winston's past experiences and mannerisms in the molecular patterns of his own cerebrum.

Winston's face, staring back out of the mirror, was a competent and rugged one that had evidently known the stress of wartime experience and had been exposed to the triumphs and disappointments of political fortunes during its thirty-eight years. But, basically, it was a visage from which flowed strong suggestions of sincerity, courage, purpose, obstinate strength in its opposition to wrong.

Sharp tested the name orally: "The Honorable Ronald L. Winston, chairman of the House Investigative Subcommittee on Cultural Influences." Then he buried his own name.

A CROSS town, Ronald Winston lay almost unconscious on the hospital bed, his volition submerged under the injected nembuthal that coursed through his system. Under his left eye was a swollen, dark bruise. There was a jagged laceration across his right cheek. Clotted blood hid the corner of his mouth.

Somewhere off to the left a door opened and closed. Winston managed to turn his head in that direction, but was blinded by the hooded light on the night table.

In a way, his abduction, despite its brutal excesses, had brought a sense of relief. It proved his Congressional investigation was not unjustified; that the Fun Houses, the Foundation, cortical stimulation, Leonard Infield—the entire complex was, as he had suspected, a sinister malignancy.

The man who had entered drew up beside the bed. Even in the meager light there was no mistaking the imposing hulk of Leonard Infield. The face, surmounted by a hairless and sheening dome, was one that had leered many times at Winston from the witness table in committee hearing room.

Effects of the nembuthal crested and suddenly a strikingly beautiful visage, framed by the soft fall of ebony hair, swam beneath Winston's closed eyelids.

"Rachel!" he muttered.

Coarse, low-pitched laughter mocked his concern.

But the apparition remained, haunting him with the realization of how much he loved his wife, even though she had frequented the very Fun Houses he was determined to destroy. And he believed she still loved him too, despite the fact that his investigation of the ECS bistros had come between them like an abyss.

"Winston, can you hear me?"

He winced before the guttural voice but clung to his vision of Rachel.

"Winston, I want to talk with you."

If only they could have had a child. Then things might have been different. And abruptly he wondered whether the ennui of childless sterility might not have been responsible for her addiction to the Fun Houses.

CONGRESSMAN!" The voice became imperious. "Answer me!"

The drug compelled obedience and Winston struggled to bring the other's severe face into focus.

"That's better." Infield pulled up a chair. "Now, who am I?"

Winston's leaden stare wandered off the other's face, then jerked back again. Only the pressure of nembuthal forced the subservient response, "Leonard Infield."

The other smiled. "Right. And who is Leonard Infield?"

"Director of the Fun House chain."

"Correction: the Foundation for Electronic Cortical Stimulation. But, there I go again—supplying information just as though I might still be under questioning by your committee counsel. However, you're the one on the hot seat now, Winston. And, of course, you know you're not going to walk out of here."

When there was no answer, Infield shrugged. "But I suppose the Foundation should be thankful to the committee. Your investigation is giving our Fun Houses publicity we couldn't buy. And, after tonight, we can be certain there'll be no regulatory laws, no inspections, no standards to meet, no federal direction to follow."

Winston's confusion showed through his glazed stare.

"Don't strain, Congressman. You wouldn't understand. Let's just say my early work in cortical stimulation provided unexpected technological spilloff. I doubt that it would ever enjoy legal status. However, it offers us a method of having you walk out of here as one of the Foundation's unwitting allies. Only, it won't really be you. But, then, you'll never know that, will you?"

While Infield enjoyed a laugh, Winston managed to mutter, "I

—I was right about the Fun Houses?"

"But of course! Otherwise you wouldn't be here now."

"And cortical stimulation—it is habit-forming?"

"Since that appears to be the principal point you're trying to establish at your hearing, I'll answer that one: Yes, in a qualified sense. All pleasurable experiences are habit-forming, in direct proportion to the amount of satisfaction they provide."

Infield leaned back and the bedside light sliced his smile into a twisted pattern of harsh lines and shadows.

"But you didn't have to ask the answer to that one," he continued. "You already knew it, didn't you? Through your wife."

Winston tried to rise on an elbow but Infield pushed him down again. "Don't you think we know she's been visiting our local Fun Houses under a fictitious name? You poor sucker. We had you nailed for sure. Even if we had not been able to take you in tow tonight, we could have crucified you through her."

**WARREN SHARP** bounded up the stairs from the vac-tube station, then paused at the corner. Across the street Infield's clinic lurked in the darkness like a squat slab of concrete-sectioned glass.

Crossing in front of the build-

ing, he hastened around to the emergency entrance and jabbed the night bell.

The door swung open upon a thickset face, stubbled with a day's growth of beard and crowned by rippled, black hair.

"Where in hell have you been?" Adler growled. "You're holding up the works."

Sharp followed him down the corridor.

"In here," Adler said, indicating the first door on the right.

But Sharp hesitated. Abruptly he was concerned—but not as much over whether he could fit into Representative Winston's role without giving himself away as he was over whether he could outmaneuver the entire Foundation. Infield was putting him in Winston's shoes to undermine the committee's probe of the Fun Houses. But suppose he decided to hold out against the Foundation. Then Infield would have to bargain to get him to sabotage the investigation.

Sharp smiled. He could come out of this thing swinging Infield by the tail and asking anything he wanted of the Foundation.

Adler opened the door. "All right, let's get on with it."

Inside, Sharp went and stood at the foot of the bed. "Damn!" he exclaimed, staring at Winston. "You didn't have to maul him too, did you?"

"That was Adler's idea," Infield disclosed. "And I can't question his methods. At least he and his boys got him here."

Adler drew competently erect. "It was a good snatch—even if I say so myself."

"Here." Infield thrust a bundle of clothes, wadded around a pair of shoes, into Sharp's arms. "Get into these. Then meet us in the transfer room."

Sharp started for the door.

But Infield called after him. "It occurs to me that if I were in your position, I might be doing some last minute speculation. Maybe your aims, as Winston, might not coincide with mine."

Sharp concealed his uneasiness. I know what I'm supposed to do."

"Then be sure you do it. Because we've taken precautions against treachery. You might just find that people you don't suspect are substitutes like yourself. Perhaps even your secretary."

**F**ORTY-FIVE minutes later, Sharp regained consciousness, his head lolling under the weight of the electrode-studded matrix.

Infield relieved him of the helmet. "You all right?"

The words stabbed into his thoughts, restoring full awareness of his own identity. For he had been questing randomly

down the avenues of Winston's past experiences—his introductory speech, news of his election, a rifle butt crashing into his forehead as he crouched in a shell hole, Rachel's face when he had asked her to marry him.

"The transfer came off fine," Sharp assured. "It's a little confusing, but—"

"How do you feel?"

"Like I'm two peo—persons." Winston would never have used *people* for the plural of *person*. "One riding on the other's shoulders."

He rose and went over to the other transfer chair where he stared down at the unconscious Congressman.

"You'd better get a move on," Infield advised. "Adler will drop you off near your home."

Suddenly dismayed, Sharp leaned forward, scrutinizing Winston. "He's—he's dead!"

"Well, what did you expect? You can't very well strip a man of all his mental equipage without destroying his autonomic integrity at the same time."

"But you didn't say—"

"What did you think we were going to do? Hide him in a private room and play nurse maid to him for the rest of his life?"

"I—"

"It's good to see that you're impressed by our disposition of Winston. Just remember, you're an accessory."

AT the Congressman's front door, Sharp paused, his hand poised before the bell. Through custom—his own—he had almost pressed the button. But Winston's habit pattern prevailed and he fished for his key instead.

Suddenly he felt more confident. The masquerade need not be that challenging. He had only to relax and let Winston's mannerisms take over—such as now, as he found his fingers characteristically combing back his sometimes unmanageable hair. It was a reflex he himself had never acquired.

With a sense of familiarity, he selected the key and let Winston's proficiency jab it into the lock. He was learning quickly. He had only to imagine he was stepping behind a curtain while a stand-in replaced him momentarily on the stage. It was as though Winston were actually within him, but completely subordinate and subdued, deprived of all volition.

He strolled down the hall, glancing at furnishings he had never seen before but which were as recognizable as though he had lived there all along. With a practiced flip of his wrist, he tossed his hat onto the rack and felt the same simple elation Winston always experienced when he didn't have to retrieve it from the floor.

Turning into the living room,

he was not surprised that Rachel did not look up from her book. Lately she had seemed to show little interest in his comings and goings, he remembered through the medium of Winston's recollections.

He surveyed her from across the room. The pastel pink of her robe posed a vivid contrast to the raven sheen of long hair that fell against her shoulders. Her sharp, elegant profile was exposed to his view and he was fascinated with the comeliness of the woman. She appeared so much more youthful than he had expected. Then he remembered, from Winston's knowledge, that she was only twenty-eight.

He smiled as he realized that in assuming the Congressman's role he had gained possession of all that had belonged to the man. And Rachel would certainly not be the least desirable of those acquisitions.

Then his expression hardened around the knowledge that the degree of alienation between him and her was not inconsiderable.

She glanced up and he could feel the frigid stab of her eyes. Then he continued on into the room, bracing himself for the first test of his disguise.

"That was a long walk," she said.

With Winston's casualness, he dropped into the stuffed chair and swung his feet onto the otto-

man. "Had a few things to settle with myself." He wondered whether the words were his, or whether they were the response Winston would have given.

She put the book aside. "The answer is still no. I *haven't* been back to the Fun Houses. The only reason I went in the first place was to prove you're wrong about cortical stimulation."

He found himself questioning the truth of her words. Then he recognized his skepticism as but a reflection of Winston's aggrieved mistrust. Through introspection of the personality imprisoned within him, he appreciated the Congressman's bitterness over his wife's attraction to the very establishments he was attacking.

The problem had been Winston's and he didn't see why he should concern himself with it. Nevertheless, in the interest of authenticating his imposture, he gave vent to the Congressman's persuasions: You still think I did wrong in proposing the Fun House probe?"

"I'm not interested in right or wrong, Ron. I just don't want you to ruin your career by butting heads with Infield."

"But the Fun Houses are nothing but rotten sores!"

"The public likes them."

"Only because the poor sucker who wanders into one of them gets hooked. It becomes a habit."

Her slim hands drew into knots. "It didn't become a habit with me. That's why I went—to see for myself. I found out you're wrong, darling. And all this is going to ruin your career. You'll only be laughed out of the next election."

But Sharp was commending himself on having passed the first test. He had engaged in spirited conversation on a provocative subject, drawing freely from Winston's implanted knowledge for the details. And she hadn't guessed he wasn't her husband!

Of course, all the while he had been arguing *against* Infield and the Fun Houses. But, then, it hadn't been planned that he should instantly arrange for Congressional heat to be taken off the Foundation. That would have aroused suspicion of conspiracy. Rather, he was to sit still and let things rock along for a while, then back down logically and gracefully from the subcommittee probe.

RACHEL came and knelt beside his chair. "Oh, Ron—don't you see you're not doing the wise thing? Maybe there is one chance in a thousand that the Fun Houses are an unwholesome cultural influence. But it's not your job to wipe them out all by yourself!"

"If not mine," he asked, with

the same stubborn righteousness Winston himself would have exhibited, "then—whose?"

"Oh, I don't know. I just know I love you and don't want you to get hurt—politically or otherwise."

"You think Infield would—"

"Infield isn't going to let his Foundation be destroyed. I'm afraid of him, Ron—afraid for you!"

He rose and was conscious of the Congressman's habit pattern taking over as he paced to the mantel and back. "Then that's all the more reason for this investigation."

"But there's nothing you can do!"

"We have three studies showing massive social deterioration among Fun House habitués," he went on, surprising himself with Winston's resurrected knowledge. "Heads of families out of jobs but squandering relief payments on cortical stimulation. Kids, mere kids, staging holdups to get enough money for their cortical kicks. Women abandoning their homes, clearing out their bank accounts in order to sign service contracts with the Foundation."

He paused to watch the pleats form in her brow, then added: "Oh, I'll admit cortical stimulation may not be habit-forming in an organic sense. But the experience is so gratifying, appar-

ently, that the effects are the same."

"They weren't with me."

"If they weren't, that's because it was different in your case. You weren't going for pleasure. You were trying to prove a point."

While she stared at the floor, he hid his expression of self-assurance. There was no doubt now that he could pass himself off as Winston—under any circumstances.

And, with that concern removed, he might devote attention to maneuvering out of this affair with maximum benefit to himself. Trip up the Foundation? It could be done—perhaps easily.

Even now one possibility suggested itself. Suppose he learned what had been done with Winston's body. Suppose he removed it from the Foundation's reach. Infield would pay plenty for assurance that it would remain hidden.

Rachel touched his hand. "Please find some way to close out the investigation, darling."

Apparently, he mused, the Foundation had an ally of whom it wasn't even aware. Both Infield and Winston's wife had been trying to accomplish the same thing—but for different reasons, of course.

He realized then how much Rachel must have been devoted to her husband. She was even

willing to close her eyes to the Foundation's evils. It was the type of warm love whose physical counterpart he was anxious to experience. He seized her tenderly by the shoulders.

But as he brought her close she turned her face. "You'll forget about the investigation?"

"No." He released her.

Then he wondered whether it had been his *no*, born of the necessity of not having Winston change course too abruptly, or the Congressman's, expressing determination to defeat the Foundation.

She whirled and stormed from the room. Fascinated by the lissome movement of slim hips beneath satin robe, he started to follow.

But he heard her door close and the lock click. And he remembered, from the hurt frustration that rose up out of Winston's memories, that the door had been barred for weeks now.

Yet he somehow felt a sense of escape. Was it his own reluctance to exercise an unprecedented advantage that would oversimplify conquest? Or was it Winston's relief, finding expression now that Rachel was safe—for the moment at least?

## II

WALKING at an unhurried pace in the crowded corri-

dor, Sharp headed for the committee chamber. To the frequent greeting of "Good morning, Congressman," he responded with Winston's customary nod. He returned an occasional salutation orally, tossing in the name of the well-wisher as it came to him from his ancillary memory.

But mainly he was preoccupied with Rachel and himself. He should have told her last night that he was beginning to regret his attack on Infield and the Fun Houses. That, surely, would have sprung the lock on her door.

Nevertheless, he had gone directly to bed, as though he were somehow unwilling to claim another man's wife. But was the reluctance his entirely? Or was Winston's ghost somehow stalking the corridors of his thoughts, providing in absentia a protection that Rachel would not otherwise have?

Then he laughed at the incredibility of his own suggestion. There was *nothing* of Winston that remained alive. A bundle of mental impressions, duplicated in the molecular patterns of his own retentive cells, could have no residual volition of its own.

Or, could it? If you take the sum total of a man's remembrances, everything ever recorded in his cortical recall reservoirs, and transplant them in the cerebrum of another person,

would you also transfer a dynamic part of the first individual? A part that could exercise independent will?

"Ronald, hold it a minute!"

Sharp triggered Winston's faculty of recognition to identify the voice behind him. It belonged to Ted Thornton, committee counsel. He turned and watched the lawyer approach.

He was a slight man with a crewcut and gimlet eyes. Efficiency and ability were suggested by his brisk stride, authoritative voice and firm grip on the portfolio he held under his arm.

Overtaking Sharp, he thumped his brief case. "I have it all in one piece—if you want to spring it at today's session."

"The Cauldwell Report?"

Thornton nodded. "It's even hotter than the Swarthmore Study, as you already know. Just give me the word and we can lower the boom on Infield, but properly."

Sharp hesitated. The man appeared, somehow, too eager. Moreover, he seemed to be hanging on an anticipated affirmative reply.

"Not today, Ted," Sharp said. "I have other plans for compounding pressure on the Fun Houses. Anyway, I'd like to see Infield squirm a while before we put the screws to him."

It appeared significant, to Sharp at least, that Thornton

showed no disappointment over the decision to let the Cauldwell Report gather dust. The counsel only shrugged and said, "Very well. I'll go ahead and set things up."

Infield had warned, "You might just find that people you don't suspect are substitutes like yourself."

Was Ted one of them? Had the *real* Thornton been murdered? Had the usurper of Ted's identity just run a test to see whether Winston's substitute would act only in the interest of the Foundation?

TENSE with suspicion, Sharp watched Thornton stride for the committee chamber. Slowly, he followed after him.

"Just keep moving along; don't turn around."

The soft-spoken but coarse words had come from a point near his left shoulder. This time, however, he didn't have to rely on a captive memory for recognition. It was Infield's strong-armed thug.

"What is it, Adler?"

"The boss figured out a way for you to start backing down today," the other whispered.

"What does he want me to do?"

"You'll know the pitch when he delivers it. Just play along."

Sharp stepped into a side corridor leading to the hearing

chamber's rear entrance. When Adler followed, he asked, "What did Infield do with Winston?"

"Why do you want to know?" Adler's voice gained volume in the solitude of the deserted, private hallway.

"There'd be hell to pay, for both Infield and me, if that body turned up and was identified."

"It won't," Adler assured. "It's been taken care of."

"Not in the river?"

"Hell no. What do you think we are—stupid? Froman got it a John Doe burial. Built-in death warrant. Pauper's provisions. No questions asked."

It was even better than Sharp had hoped. The corpse was well preserved for identification. And, when the proper time came, he himself could hand-collect the evidence from District records that would connect the body, through Dr. Froman, with Infield's staff and clinic. He would have the Foundation in a vise.

"Good!" he exclaimed. "That lets me breathe more easily." Without Winston's erudite background, he reflected, he would have said *breathe easier*. And he was grateful for the knowledge of public record-handling and legal processes the Congressman had unwittingly bequeathed him.

When he reached the door, however, he stood there with his hand on the knob, thoughtfully watching Adler retreat.

The inspiration to ask about the corpse—had it come from his own reasoning? Or had it been cunningly planted by a still-sentient reflection of Winston? Could Winston possibly be laying his own posthumous plans to trap Infield and the Foundation?

**H**ALF an hour after calling the session to order, Sharp was still preoccupied with his uncertain thoughts.

On his left, Thornton was firing questions at Infield, seated across the table. Congressman Jacobs, on Sharp's right, was an attentive listener, despite his seventy years. His pale blue eyes strayed occasionally to the press table to make certain the proceedings were receiving adequate coverage.

"I think," Thornton said, changing subjects, "that the committee would be interested, Mr. Infield, in hearing what goes on when a client visits one of your Fun Houses."

"I assure you, we receive no complaints. They pay their money—"

"Technically, I mean."

Infield shook his head. "The process is not patented. I believe I am within my rights in refusing to discuss it."

"Have you kept it secret because you're afraid of the reaction should it become generally known?"

Folding his arms, Infield declined to answer. And Sharp found himself bristling over the man's supercilious stubbornness. It was not the first time he wanted to seize Infield by the collar and—

Abruptly, he brought his resentment under control. And he wondered whether the revulsion had its roots in Winston's experiences, or whether his own dislike for the Fun House czar was achieving new proportions.

"Come now, Mr. Infield," Thornton coaxed. "Surely you can tell us *something* about what goes on when you subject a customer to cortical stimulation."

The witness glanced about the room. Then, condescendingly, he offered, "We generate a type of high-frequency stimulus that excites appropriate hallucination centers of the brain."

"High-frequency in the ultrasonic range? Or in the electromagnetic spectrum? Does it produce adverse effects?"

"Of course not."

"Then let me ask this: Are you aware that the names of not an inconsiderable number of your clients are turning up as subjects of police complaints?"

"That's a lie!" Then, in a more restrained voice, Infield added, "It is possible that a great advance in the amusement field may exert some influence on social behavior. But, in an earlier

age, did you censor television programs because juvenile crime happened to be on the increase at the same time?"

Thornton laid a hand on his brief case, glancing hopefully at Sharp. But the latter only shook his head. And the committee counsel seemed deeply disappointed that he wouldn't be allowed to pull out the Cauldwell Report.

Congressman Jacobs leaned forward. "Mr. Infield, tell us—just how do you regard your Fun Houses, from a cultural standpoint?"

The witness spread his hands. "Our Foundation for Electronic Cortical Stimulation provides a service in the entertainment field. It is a service for which there is increasing demand—much more than can be satisfied by our sixty-eight establishments across the country."

"It is our intention," Thornton interrupted, "to determine whether that service is legitimate."

"It is most legitimate—as socially acceptable as were the neighborhood motion picture houses that spread all over the nation almost a hundred years ago. There were no doubt many voices raised against those institutions too. They were also accused, I'm sure, of drawing people away from the hearth, destroying family life."

SHARP sat there tugging unconsciously at his right eyebrow. It wasn't until he became annoyed with the motion that he realized the mannerism was not, nor had ever been his own. His mindmate's?

Jacobs spread bony, thick-veined hands on the table. "Let us say that I went to one of your Fun Houses. Could I select the type of, ah—entertainment, of excitement I wanted to experience?"

Infield nodded. "In almost any category you could think of. We'd simply stimulate the appropriate hallucination centers."

Jacobs' brows rose expectantly. "What about—sexual experiences?"

The press table and gallery broke into laughter.

Sharp rapped for order.

"If that's what you wanted," Infield answered. "But, of course, we provide nothing except an electronic kick. We start the ball rolling, so to speak, and your own imagination takes it from there."

Sharp felt that Winston had been too silent and should be having his say at his own subcommittee hearing. At the same time, it was as though he could sense a certain inner restlessness, an impatience to come to verbal grips with the witness.

He bent forward, but was hardly conscious of his own voli-

tion in forming the question: "It's been said that the experiences are—*real*, hasn't it?"

"Only in a qualified sense. Actually, they only *seem* real because they are so vivid."

"Suppose I wanted to experience the sadistic satisfaction of a brutal murder. Would—"

Infield held up his hand and rose suddenly. "May I make a suggestion?"

Thornton frowned. "The committee is conducting this hearing. And I can't see where any suggestion you might have to—"

But Infield had been staring anxiously at Sharp. And Sharp got the unspoken message that this was the "pitch" Adler had told him to expect. Unobtrusively, he nodded at the committee counsel.

"Go ahead," Thornton said.

"It has already been brought out," Infield reminded, "that no one on your committee has ever been to a Fun House. Yet, in effect, you propose to sit in judgment over the Foundation for Electronic Cortical Stimulation. May I invite the Cultural Influences Committee to visit one of our local Fun Houses tomorrow?"

Jacobs cleared his throat pontifically and said, "I suppose I could go along with that." And he promptly drew more laughter from the gallery.

But Sharp tensed. For he had

intercepted the subtle wink that had passed between Jacobs and Infield. Jacobs—another surrogate flunky? The real Congressman from Pennsylvania—in a pauper's grave?

"Very well," he agreed finally. "I think it can be arranged."

**S**HARP'S decision to subject Congressman Winston to his first cortical stimulation experience made for only a slight thaw in Rachel's attitude that evening.

It was a softening in her disposition that would have gone unnoticed, however, had he not been anxious to establish more compatible relations. Sitting there evening after evening, stealing only an occasional glance at her, would soon become a particularly provocative kind of monotony. Especially when she was so disturbingly attractive and when there were more gratifying ways to spend such long nights.

He finished his after-dinner brandy, set the glass on the table and leaned back to stare at Rachel, fascinated with the flicker of artificial hearth fire upon her smooth face. And his hand fell unconsciously into Winston's quirk of fingering his scar and the eyebrow below it.

Irritated, he picked up the evening paper, but cast it aside in disgust when he saw the front page was crowded with accounts

of the committee hearing, a human interest picture of Congressman Jacobs showing eagerness over tomorrow's Fun House visit and a side story on plans for broad expansion of the Foundation's chain of establishments.

Rachel's book, held rigidly before her, seemed to symbolize the barrier she had set up between them. At the same time it satisfied the immediate requirement of providing superficial justification for her offended silence.

Eventually she put the book aside and selected a cigarette from the box on the coffee table. When her unsteady hand knocked the lighter to the floor, Sharp went over and retrieved it. He fired the wick and held it before her, watching its soft glow bathe her large, dark eyes.

She exhaled smoke and said, "At least I'm glad you accepted Infield's offer. You'll find out what the Fun Houses are like."

He sat beside her—but not too close. And he wondered whether the distance between them was his own idea or that of a not completely subdued Winston.

"I should think you'd be concerned," he observed.

"Over what?"

"If, as you say, Infield is all that unscrupulous," he explained, with an intentional tinge of melodrama, "I'll be at his mercy."

"Oh, but he wouldn't try anything tomorrow. Not with everybody watching."

Why, he wondered, *was* Infield interested in subjecting the committee members to cortical stimulation? Merely as a means of softening the Congressional attack on the Foundation? Or was his motive less innocuous than that?

Then he turned to a more disturbing suspicion: Suppose it *was* possible for Winston's memories and attitudes, mannerisms and convictions to rise up assertively within him and take over. His visit to the Fun House, then, would allow Infield to check on the dormancy of the Winston will and make certain that he, Sharp, was still capable of carrying out the Foundation's scheme. The balance of power within his mind could be established through cortical probing, such probing being an unpublicized feature of ECS technology.

Then he tensed before abrupt awareness of the special danger he now faced: A cortical probe might also turn up his hidden intention of betraying the Foundation, of blackmailing Infield!

HE rose and paced, hardly mindful that Rachel was regarding him curiously and must be wondering about his sudden concern.

His hand came up in Winston's characteristic gesture of combing his hair back into place and he thrust it intolerantly into his pocket.

Then he calmed himself. The probe worked only on unsuspecting victims. That much he remembered. If he made a determined effort to conceal the knowledge while undergoing cortical stimulation, his secret should be safe enough.

Rachel crushed her cigarette in the ash tray. "Ron, I do wish you weren't involved in the Fun House investigation."

"Well, I am!" he snapped back. "And I don't want to hear any more about it!"

But he hadn't wanted to say anything that unequivocal. He had already taken his first step toward eventual abandonment of the probe by agreeing to the cortical stimulation session. And, by now, he should be displaying uncertainty, moderation before Rachel. But he wasn't. He had, instead, stubbornly reaffirmed Winston's determination to fight the Foundation. Why?

She shrugged. "Maybe tomorrow you'll see things differently—after you've had first-hand experience with ECS."

"I doubt it," he blurted out before he could think of anything less decisive to say.

The Fun House experience, of course, wouldn't be novel. He had

gone there before—a number of times. He had reclined on the couch and let them place the electrode-stubbed cupola on his head and had drifted off into—into what?

Suddenly he was alarmed. On at least a dozen occasions he had bought his hour's worth of pleasure. Yet, now he couldn't remember a single one of those synthetic experiences! It was as though the memories were vindictively smothered under the persistent resentment that Winston held for the Foundation.

She came and sat on the arm of his chair and taut skirt gave full, round expression to the shapeliness of hip and thigh.

"Why can't we be like we were, Ron?" she asked, her voice full of suggestion and negative allusion to the locked door.

"You've determined otherwise." He started to put his arm around her waist but snatched it back without knowing why.

"Only because I want what's best for you, for us."

"What makes you suddenly think you have better judgment than I?" It was exactly the way Winston would have phrased it.

"Oh, darling, you don't know what you've gotten yourself into. But I do."

"How? Woman's intuition?"

"It's no secret Infield has surrounded himself with thugs and discredited professionals."

"That's one of the reasons I want to break up the party." He felt lost in the conversation. Winston was doing the talking. He was just along for the ride.

"But it's dangerous!" she insisted. "What about all those horrible, threatening letters?"

"The work of crackpots and ECS fanatics. Infield wouldn't have the guts to try anything like that."

SHE brushed hair off his forehead. "Ron, there's another reason why I don't want anything to happen to you—a more important reason." She lowered her voice. "It's our son."

Son? Rachel had no children! She couldn't have any!

"Darling," she went on, "I'm going to have a baby."

Winston's background knowledge took over again. "You can't. You're sterile. We found that out four years ago."

She shook her head calmly. "No, honey. I'm going to have a baby. The condition was only temporary."

"That's impossible! They assured us at the hospital in Chicago. When we had that test made—the salpinogram—"

Then he understood, through Winston's comprehension. She was lying. She was barring no holds as she tried to dissuade him from his perilous attack on the Foundation.

"Now will you leave the Fun Houses alone?" she asked.

"No!"

But that wasn't the answer he had intended. Rather, he had made the instant decision to start backing away from the investigation—now. He had meant to accept her lie; to agree to let the committee probe die on the vine; to bow out tactfully and eventually give Infield's Foundation a clean bill. Then Rachel's door would have been unlocked this very night.

But, instead, he had spat out the *no* with Winston's customary obstinacy.

Distressed, she swept from the room and, a moment later, the slamming door and clocking lock came as no surprise.

Thoughts of Rachel quickly fled his mind, however. Was there an active remnant of Winston lurking in the recesses of his brain? Had his mindmate managed that entire conversation? Had the *no* come so explosively because Winston knew it would fortify the barrier between the usurper and his wife?

But Sharp's apprehension faded before a surge of angry determination. He would *prove* that the passive vestiges of Winston's personality could exert no influence over his actions! He would cast aside all reluctance and take the Congressman's wife—now!

He strode down the hall and

rapped on Rachel's door. When she didn't answer, he banged insistently.

The door opened finally and she stood there in her slip, brush poised in its entanglement with strands of her lustrous hair. There was expectancy and only a trace of uncertainty on her face.

"Yes?" she coaxed.

"I—I—"

Hardly aware of his actions, he jerked the door shut. After a moment, he tried to open it again. But it was as though his hand were paralyzed on the knob. He could only stand there perspiring and trembling.

He stumbled into the living room and over to the mantel. Unconscious of his motions, he selected a pipe from the rack and crammed it with tobacco. Not until he clamped the stem between his teeth, however, did he remember he had never smoked a pipe.

Swearing, he cast Winston's brier away from him as though it had turned into an asp.

ONLY Sharp and Congressman Jacobs showed up at the Fun House the next morning. They arrived in separate cars at about the same time and stepped out onto a sidewalk crowded with curious bystanders, press-television representatives and clients of the establishment.

It was the latter who caught Sharp's attention as he accepted Infield's extended hand. The clientele at this midmorning hour, he noticed, mainly included well-dressed women who were anxiously awaiting admittance to the Enchantment Rooms. But also present in considerable numbers were the shabby, dour-faced patrons who circulated among the crowd; palms extended, as they panhandled for their price of admission.

These, Sharp observed, were the ones who were hooked. And their threadbare appearance contrasted the gaudy facade of the Fun House—the ludicrous clown's face etched in flashing neon tubes; the nude female torsos projecting in high relief and in shameless contortion from the imbroglia of color-splashed concrete; the montage of frescoes depicting all types of adventurous activities.

Infield pumped his hand. "Well, Congressman, are we going to have any other members of the committee with us this morning?"

"I'm afraid not," Sharp replied in Winston's most aloof manner for the benefit of the press. "As you know, most of us are otherwise committed."

"Of course." Infield led him and Jacobs toward the entrance. "At least, we have two-thirds of the subcommittee here."

They were inside now and Infield delivered Jacobs over to a velvet-clad usherette whose shapely legs vied with her pixie-like smile for the elderly Congressman's attention. She led him down a carpeted hallway flanked by alcoves whose soft lights played upon glistening Grecian statuary.

Sharp followed Infield down another hall.

"I'd hoped we could get more than a two-member turnout from the over-all committee," the latter said.

"You don't know much about political expedience," Sharp explained, drawing upon Winston's experiences. "Redmann, Moran and Douglas wouldn't be caught dead on a controversial hotspot. The others are from big-city districts. They wouldn't risk alienating the Fun House vote independent of full committee action."

They had reached the manager's office and he paused before the door. But Infield continued on down the hall.

Realizing he had gone on alone, he stopped and turned. "Well?"

"Why don't you have one too? It's a lot of fun."

"Come off it. This is only for show, isn't it?"

"Sure. Strictly business. But there's no reason why you can't mix in a little pleasure."

"I don't particularly care for cortical stimulation."

Infield laughed and caught his arm. The grip was insistent. "Oh, come on. Don't go sanctimonious on us like Winston."

Sharp went along without further protest. It wouldn't do to let the other sense he might have something to hide from a probe. He would simply have to keep himself from thinking about crossing up the Foundation and making a killing through extortion.

ADLER was waiting for them in the Enchantment Room. He was at the stimulator control console talking with the ESC operator and an usherette. But he hurried over to the door.

"We've been waiting," he told Infield. "Johnston has everything warmed up and ready to go."

The blond girl took Sharp's arm and her brief skirt rippled about her thighs as she escorted him toward the half reclining couch. Johnston rose respectfully and it was apparent neither he nor the girl knew the "Congressman" was merely a Foundation plant. Sharp approached the couch with grim reluctance. It wasn't only that he feared being robbed of self-incriminating knowledge. It was also as though Winston himself were writhing in protest to this forced experience with cortical stimulation.

Then he tensed with new apprehension. How was *Winston* approaching this ECS session? He must certainly know about his mindmate's plan to extort millions from the Foundation. If *Winston* wanted to destroy him, he had only to surrender the knowledge that he, *Sharp*, was trying to hide from the probing impulses!

*Sharp* averted panic by throttling his frantic speculation. There *was* no *Winston*! He had to convince himself of that! Otherwise his unreasoning fear would soon generate the illusion that a sentient *Winston* *was* pulling all his strings.

Infield told the ECS operator, "I'll handle this one myself."

Disappointed, *Johnston* headed for the door.

The usherette adjusted the electrode-bristling cupola on its boom, lowered it over *Sharp*'s head and followed the operator out.

*Adler* sat on the edge of the couch, making certain the helmet was properly in place, then reported, "Ready on this end."

*Sharp* forced himself to repeat again and again, *Don't think about double-crossing the Foundation!*

Seated before the console, *Infield* asked, "All right, Congressman, what category of enchantment will you have—sex?"

*Adler* laughed and slapped

*Sharp* on the knee. "Sex? For this old dog? Not with the setup he's got now in *Winston*'s shoes!"

*Sharp* flinched with sudden anger. But was it his own resentment that made him want to drive a fist into *Adler*'s lustful face? Or was it *Winston*'s rage over the man's disrespectful allusion to his wife?

"No preference?" *Infield* asked. "Very well, then. I'll pick something at random."

*Sharp* braced himself with a final, resolute exhortation: *Don't think about blackmailing Infield!*

**B**UT the category hadn't been selected at random. Even as *Sharp* recoiled from the blinding shellburst on his right and dived into the shallow, bomb-gouged crater, he realized *Infield* had decided upon a sequence of hallucinatory experiences that would require his total concentration. He would have no attention left to assign to guarding against the probing impulses that would soon come along.

He used his automatic rifle to break his fall, then rolled over in the soggy, blood-stained depression.

*But Infield made a mistake.*

*A mistake? How?*

*Don't you see? You're going to be hopping around so much to stay alive that you won't be*

*thinking of anything else!*

Sharp's grip on his weapon was suddenly like steel—but cold and moist and trembling with fear.

*Winston? Was it Winston who had counseled him?*

But there was no answer. Had he only imagined the inner voice?

On the hill ahead a machine gun chattered viciously, slicing the blackness above Sharp's fox-hole with streaks of incandescence.

A small object hurtled out of the night, landing just beyond the rim of the crater. He flung himself back into the mire. The grenade went off, showering dirt and steel upon his helmet.

*Don't just lie there! The rest of your patrol is coming up. They'll be cut to pieces if you don't knock out that nest!*

*Winston?* Sharp searched the obscure folds of stinking night all around him, as though he might find his mindmate lurking there physically. After all, he and Winston had once served on this same battlefield which his own imagination, stimulated by appropriate currents, was now reconstructing.

*You're not yellow too, are you, Sharp? Get up! Rush that nest! Make it hot for yourself! If you lie here and hug your guts you'll only have time to think!*

And he mustn't think! If he

did, his thoughts would wander inevitably to—

He brought the muzzle of his rifle up before him and fired half a clip at the hill.

*That's it! Keep on doing something! Anything! Let them have one of your grenades!*

Sharp fumbled at the flap of his grenade pouch. His thoughts were desperate and incoherent, squeezed as he was between physical peril and the threat from within.

Impulsively, he pulled the pin on the grenade, hurled it and ducked. The explosion cast fierce, raw light upon the hill, bringing out in horrible sharpness the twisted bodies of the previous assault that had thrown itself against the enemy position.

The machine gun opened up again and he took a slug in his left shoulder. Seared with pain, he slid back into the crater.

*Good! Now you won't be able to think of anything except that shoulder. But it won't last long. You'll have to rush the hill!*

WINSTON and himself—back on the same battlefield they had once shared without knowing each other. It was a field on which Winston, however, had gathered together the shreds of his courage and had woven them into a record of valor and personal triumph. But he, himself, had only—

*That's the way, Sharp! You're doing fine! Now let's think about taking that nest.*

Why was Winston on his side? Did he want to protect the body he was now tenanting from the fierce wrath of the Foundat—

*No! Think of something else! Anything else!*

Did Winston, too, have a plan? Was he perfecting it in the silent, remote recesses of the mind which held him captive?

*You're still skirting dangerous ground! Get off your belly! Rush that position! It's our only chance!*

Sharp drew himself up on his knees, cursing the hot coal that was lodged in his shoulder. With his teeth, he pulled the pin on another grenade and crawled over the rim of the crater.

Same battlefield. Almost the same action. Only, this time it had been recreated by stimulating impulses. And this time he had an ally such as no man had ever had. Suddenly he wished he had known Winston before. He would like to have fought *beside* him.

*Down, Sharp! Hug the ground! Hear that whine? It's one of our Mark IV flares. It'll burst in another second!*

It did. And it flooded the battlefield with intense brilliance. But Sharp, having just begun to crawl up the hill, was as motionless as the corpses about him.

*It's our party now! That flare blinded the gunner. Take it on the run! Another twenty yards and we can hurl our grenade!*

*Winston?*

Why did the voice never answer him directly? Was it because there *was* no Winston? Merely his own inner self, seizing upon a novel device suggested by circumstances to fill himself with courage?

*Don't waste any more time, Sharp! Rush that position!*

He charged, arm raised to hurl the grenade. But he tripped and pitched forward. The grenade flew from his grip and he braced himself against the anticipated blast.

It came with a roaring concussion. And he screamed as shards of steel plowed into his back. More shrapnel to join the bits that were already there, pressing in on his spine.

A MOMENT later Sharp found himself back on the Enchantment Room couch, the cupola wedged firmly on his head. He stared at tapestried walls, listened to the soft music drifting from hidden diaphragms.

The cortical stimulation session was over. Apparently, Infield had let it go on only long enough to conduct the mental probe.

And the probe had failed! Sharp commended himself now on not having once thought of

his intention to dupe the Foundation, of his dislike for Infield, of his plan to hold out for millions.

Infield came over and helped Adler swing the helmet aside on its boom.

"Of course you realize," Infield said, "that we wanted you here so we could pry around in your mind."

Sharp rose from the couch and shrugged. "So you pulled off a probe. And what did you find out?"

"I saw such contempt for the Foundation and determination to destroy it as I wasn't aware existed."

Adler swore and seized Sharp by the collar. "I told you we'd have to watch him!"

But Infield caught the man's fist. "Hold it! That's good property. We wouldn't want to mess it up."

"But you said—"

"I was speaking about *Winston's* contempt," Infield explained. "The main reason for the probe was to determine how strong the Winston impressions are. And I'm satisfied that they're damned strong indeed."

Sharp straightened his collar. "At times it seems they're too strong."

"Yes, I know. That's the sign of a good transfer. Don't worry about—ah, being 'taken over'. It just doesn't work out that way.

None of our other surrogate personalities has failed us."

Sharp started for the door.

But Infield stopped him. "Our next move, incidentally, comes at Monday's session. Very humbly, you're going to apologize to the committee. You'll ask to be relieved of your chairmanship."

"Why?"

"You've suddenly learned Mrs. Winston is a Fun House habitu e."

Sharp rocked forward. "You can't bring her into this!"

Then he fell back. Had Winston blurted that out in anger over the prospect that Rachel would be discredited, humiliated? But, soberly, he realized it had not been the Congressman who had spoken. It had been—himself.

But why? Was it that he, too, was beginning to love Rachel and wanted to protect her as much as Winston did?

"Nonsense," Infield protested. "Of course we can. And it'll make you look like a sucker. But before you attract too much sympathy, you'll admit your wife has not been harmed in any way by her Enchantment Room sessions."

**D**ISCOURAGED by her husband's silence on his Fun House experience, Rachel didn't share the living room with Sharp that evening. Instead, she went

straight to her room, leaving the hired girl to serve after-dinner coffee and clean up in the kitchen.

Sharp, however, didn't mind being ignored. He could well use the solitude to wrestle with his pressing uncertainty. For it appeared increasingly difficult at times for him to constrain the vestiges of Winston's volition within him.

At the press conference following his visit to the Fun House, for instance, it was Winston who had violently attacked the Foundation once more, stubbornly refusing to admit that he had found nothing to criticize during the cortical stimulation session. Sharp, on the other hand, had only sat by, injecting nothing into the Congressman's answers.

More than occasionally, now, it seemed Winston was the activist, Sharp the restrained, brooding observer. Yet the Congressman had not spoken directly to him since the battlefield experience in the Enchantment Room. It was like a cat and mouse game, with only Winston brandishing the claws.

Sharp poured a fourth straight Scotch, regained his bearings enough to find himself puffing on Winston's lighted pipe and once more hurled the brier at the hearthstone. This time crushing the bowl beneath his heel.

Collapsing in his chair, he knew he had to have this out with himself. Hadn't Infield told him not to worry about being 'taken over'; that such delusions were merely signs of a good transfer? He *had* to make himself believe that!

*Winston, he thought, are you there?*

There was no response.

Less cautiously, he repeated, *Winston, can you hear me?*

After an eternity: *I can hear you.*

He jolted in his chair. *No, you can't! There's only me!*

*Only you—and me.*

He hurled the glass against the hearthstone, then reached for the bottle of Scotch. But his hand shook so that he upset it on the table. Then he insisted there *was no Winston*; that he was merely asking himself questions and providing the answers subvocally, imagining that two separate identities were doing the thinking when all the while there was only one. Just himself.

*No, Sharp—you and I. The both of us.*

*Then why have you hidden until now?*

*Because this had to come gradually. You couldn't have taken the shock at first.*

It was Winston who rose and, with a steady hand, set the Scotch bottle upright. Calmly, he walked over to the hearth and

nudged the fragments of his pipe with his shoe. He selected another brier and filled it with tobacco. Then he returned to the chair, placing the pipe on the table before him.

*Sharp?*

*Yes?* A groan escaped his dry lips.

*I am going to take over eventually.*

*You can't! You don't exist—not any longer!*

*As I understand it, my psychic entirety was transferred.*

*No! You're just a passive reflection—an afterimage! You're dead!*

*Now you don't believe that, do you?*

*I—I'll tell Infield what's happening! You can't stop me from doing that!*

*Perhaps not. But I don't have to. Because if you convince him I'm taking over, it'll only be the end for you.*

Without volition, Sharp drew a finger demonstrably across his neck. Then he slapped the hand back onto the armrest.

*But, Winston went on, you won't convince him. For he'll assume you're just having hallucinations without cortical stimulation.*

**W**INSTON was right! That's exactly how Infield would interpret it! And Infield would find some way to help him!

Sharp lunged for the videophone.

*Go ahead, Winston jeered. Tell him you imagine I'm taking over. You'll still have to be destroyed. Because if those delusions start running deep enough the effects will be exactly the same as if I were stepping in.*

Sharp recoiled from the videophone. He wanted to run screaming from the house. But how could he escape himself?

Then he clung to the desperate hope that the articulate Winston was only his own imagination, his independent conscience trying to find novel, convincing expression.

He waited for a response to that suggestion. But there was nothing. Or, did he detect subtle laughter echoing from some deep fissure of his mind?

He seized the Scotch bottle and hurled it across the room. He would put an end to this nonsense immediately—at the point of attack from which he had retreated two nights ago! This unreasoning fear of being possessed had started with his imagining Winston had somehow stepped in to protect Rachel.

Well, he would *claim* Rachel—*now!* And he would prove that any reluctance he had felt before her door was none other than his own!

He strode toward the hall. But the videophone bell sounded.



He flicked the switch and a face Winston would have instantly recognized as Dr. Jerome Clark flashed on the screen.

"Hi, Ron. I knew it would be useless trying to get you earlier. I've been following the videocasts and know how busy—"

"What is it, Jerry?" Sharp cut the physician short.

"Rachel was in to see me a few days back, you know."

"She was?"

"Ron, take care of her. In a way she's delicate. It may not be an easy pregnancy."

Then she *hadn't* been lying! She *was* going to have a baby!

"But she can't be pregnant!" he objected. "We were assured she couldn't ever have a baby!"

"Yes, I know. I got the transcript of her medical record. And I'm aware of that salpinogram you had made a few years back. Normally, occluded Fallopian tubes ring down the curtains on pregnancy—with great finality. But once in a while, once in a great while, an occlusion will clear up by itself. You see—"

Stunned, Sharp disconnected without even realizing he had thumbed the switch. His thoughts were spinning in a vortex. But out of the welter of concepts, several incredible facts fell into a logical pattern. And with it came fierce resentment for the Foundation, hatred for Infield, hurt indignation for Rachel.

Then he remembered what he had been about to do when he was interrupted by the videocall. With renewed resolution he charged down the hall and drew up outside Rachel's room.

It required but a single, determined crash with his shoulder to send the door hurtling inward.

#### IV

WHEN Sharp left Rachel's room the next morning she was still asleep. He showered, shaved and dressed quickly. In the kitchen he tapped the percolator for a cup of coffee then reviewed his strategy. He would, of course, be handicapped by Saturday hours. But before the day was over Infield would be drawn and quartered while he, himself, would be beyond the pale of the Foundation's reprisal.

He thought of Rachel, sleeping contentedly now. She had resisted, but not for long. Her defense had crumbled before his bitter determination.

But one thing was certain: He had no regrets.

For when the Foundation had substituted a surrogate Rachel Winston for the Congressman's wife months back, he supposed both Infield and the woman had asked for whatever she would now get.

When had they made the

switch? It must have been just before Rachel started going for her cortical kicks. Of course! That was why they had substituted her—so she could eventually embarrass Winston by frequenting the Fun Houses! At same time, the plan called for Winston to be confronted by a suddenly frightened wife who might even prevail upon him to let the Foundation off the hook.

But they had made a mistake. They had not known about Rachel's Fallopian occlusions and resultant sterility—not until after the surrogate had gained access to her personal knowledge.

By then the usurper was in a precarious position. She must either take the chance of becoming pregnant, or enforce celibacy on her marital relations. She had subsequently killed two birds with one stone, however, by locking her door in protest to Winston's investigation.

But it was too late. She had already become pregnant.

Only one point of uncertainty troubled him now! Was she as ignorant of his role as he had been of hers? Or did she know that he, too, was a surrogate?

He gulped the rest of his now tepid coffee, then strode for the door, congratulating himself on yet another triumph. He had been right in surmising that by taking Rachel in defiance of Win-

ston he would break the latter's imagined grip on him. Since last night there hadn't been a peep out of the Congressman.

Or, was the odd silence simply a measure of Winston's stunned reaction to the disclosure that Rachel had been only a surrogate?

WITH Winston's credentials he encountered little difficulty in gaining admittance to the Office of Vital Statistics. There he photographed evidence of a death certificate having been issued for one Francis Watson and signed by Dr. August Froman, a staff member at Infield's clinic. He was also able to document burial of the body in a pauper's plot.

The exhumation order was next. And Judge Farriday might well have raised objections to the irregularity of the request had Sharp not fallen back on the friendship between Farriday and Winston.

"You mean you want me to order a body exhumed, but you don't want it to be dug up just now?" the judge asked.

"That's about it, Fred," Sharp said. "Mainly I don't want to make an ass of myself. I'm working on something that could blow the Fun House probe wide open. But I'm not sure yet. And if I went about this more directly I could look like a damned idiot."

"In other words, you want to have the order ready to spring when other circumstances warrant."

"If other circumstances warrant. It's still that vague."

"Can do. We'll leave the date blank."

"One more thing, Fred. Just forget you ever gave me the order. If my lead doesn't work out, I wouldn't want even you to know what a fool I almost made of myself."

Farriday slapped him on the back. "It's already forgotten."

Sharp's next call was on a police official with whom Winston had enjoyed the same close relationship. Saturday's schedule, however, forced him to visit Captain Rawlins at his home.

Over a cup of coffee, the Captain accepted the proffered slip of paper. "Let me get this straight: You want me to post a plainclothes man on guard over this grave?"

"Inconspicuously. Just in case someone tries to disturb it."

Rawlins grinned. "Joke?"

"No. I may have something hot in connection with the Fun House investigation."

"Like what?"

"I can't say just now, Stan. In its present stage it's still too far-fetched. But it just might be a critical development."

"How long do you want this stakeout there?"

"Maybe a couple of days. Maybe a few weeks."

"All right, Ron. I don't suppose you're pulling my leg."

"Not when I may be in up to here," Sharp indicated his chin.

"Sounds bad. I'd better put a couple of the boys on you too."

"I'm afraid it would look like I'm shaking in my boots."

"Not with your war record, I'm sure."

"All right. I'll take a couple of protective tails—for a day or two, maybe. But keep them out of sight."

THE last preparatory task was the least challenging, involving as it did only a call to the home of the subcommittee counsel.

Thornton admitted him and observed that he had arrived just in time to join him and Ellen at lunch.

But Sharp declined. "No time, Ted. I've been doing some leg work on the probe and I've hit something big—I think."

Thornton's eagle eyes brightened. "What is it?"

"This is going to sound like a kettle of cloak and dagger—but I can't say just now. What I'd like you to do, however, is provide me with a few sheets of paper, pen, envelope and some desk space."

"What on earth for?"

"I have some documents and

an explanatory note to preserve. I'll also need you and Ellen to witness my signature. Then you're to forget about the entire incident."

"But I don't understand."

"The envelope I'll give you is to be opened only if you have reason to suspect something's happened to me. You'll take it downtown and put it in your safety deposit box. I've already made arrangements for Saturday service."

"Sounds like you're in something pretty damned deep—whatever it is," Thornton said soberly.

"It isn't as somber as it sounds. These are just long, long range provisions."

"Anything I can do?"

"Only what I've just requested." Later he would make permanent arrangements for insuring against retribution by Infield.

After he had penned his lengthy exposé of Winston's murder, he affixed his signature. Then he had Ellen and Ted countersign the document without reading it. He sealed into the envelope photos of the death certificate and other records showing disposition of the body, together with Judge Farriday's exhumation order.

Late that afternoon he returned to his suite in the House Office Building and called down to the pressroom. Only one wire

service representative and two local reporters were on duty. But they were sufficient.

At his hastily convened press conference, he announced the Cultural Affairs Investigative Subcommittee would push into the final phase of its Fun Houses hearing Monday. He reaffirmed Winston's condemnation of the Foundation and revealed that he would have incriminating evidence to present in the form of three special reports.

Immediately after the press conference he took a vac-tube home. There remained only the necessity of a quick trip to Baltimore early Monday to engage several special deposit boxes in the name of "Mark Trinity" at Merchants Trust.

In the vac-tube capsule, though, he had disturbing second thoughts. Was it actually *he* who had set the wheels in motion? Certainly, he alone could never have conceived of the scheme. But, then, he had Winston's knowledge and intellect at his disposal, didn't he? Or was it more than that? Was part of his mindmate's volition there too, cunningly hidden in the background?

Suddenly he realized that throughout the day it had been as though *Winston* had set the trap for Infield; as though he, himself, had only sat back and watched.

And now Sharp saw, too, how ambiguous the plot was: Depending upon whether the secret documents remained hidden or came to light, the plan could serve either his own purpose of personal gain or Winston's end of triumph over the Foundation.

Then, as he left the vac-tube capsule and stepped into the gathering darkness a block from his home, his thoughts stalled on an appalling possibility: What if his original suspicion had been correct and Thornton, to whom he had entrusted all his documented proof, was but another surrogate personality?

WHEN he reached home Rachel had already had dinner and gone to her room. But that was just as well since, if his hunch were right, there'd be a response from Infield fairly soon now.

He poured a drink, checked his watch and went over to the window. Peering out through the curtains, he saw Captain Rawlins' plainclothes men—one still concealed in the shadow of the vac-tube turret, the other in a car parked across the street. They had both identified themselves as he passed them.

The videophone jangled and he crossed over to the instrument.

Infield's image steadied on the screen. "What in hell are you trying to do?" The man was visi-

bly distraught. He clutched a handkerchief, but the accumulation of perspiration on his face went uncontested.

"Nothing." Sharp sipped from his glass. "Except hang one on your chin."

"What do you mean? What was the idea of that press conference? You weren't supposed to—"

"I want two million dollars."

"You—*what?* You get over to the clinic immediately!"

"Early Monday morning you are to drop off two million for Mark Trinity at Merchants Trust in Baltimore. In large, packaged bills."

"You're crazy! I'm sending Adler to bring you in!"

Sharp pulled up a chair before the screen. "Item One: I'm well protected, thanks to Winston's pull. Item Two: I've accumulated a mass of evidence showing that the death certificate for a body—also now well guarded and bearing a remarkable resemblance to Congressman Winston—was signed by a member of your staff. Item Three: That evidence, together with all relevant details, is in—shall we say?—a sort of pop-up file. It will all come out into the open automatically if anything happens to me."

Infield's jaw unhinged. "You must be—Are you serious?"

"Two million," Sharp repeated. "Monday."

"But—but—" Then Infield mopped the perspiration from his brow and laughed. "I'm afraid it would appear that the joke's on you."

Sharp looked puzzled. He leaned toward the screen. "What do you mean?"

"You've sold yourself short. Your services are worth more than that. But if you want two million in advance, I'll be happy to take care of it."

Sharp stared skeptically at the man. Why the instant capitulation? Why no fight?

"But you should have spoken with me first," Infield continued. "You did a lot of unnecessary damage with that press conference this afternoon. How do you propose to undo it?"

Still wary, Sharp explained, "I'll say I was misinformed on the reports, that Rachel has been visiting the Fun Houses without any ill results, that the whole idea of the investigation was to advance my political career."

"That career angle—it's a likely gimmick," Infield commented.

"Of course, it'll ruin Winston. But I figure you can fix it up later on so I won't be Winston any longer."

"Good idea. We'll fade you out completely. A new identity. And, Sharp, you'll have a solid place with the Foundation."

"Sure. Just prepare that package for Monday morning."

AFTER he had disconnected however, he felt no sense of triumph. It had been suspiciously easy. Infield hadn't even protested the difficulty of raising the money on so short a notice.

Then he turned and saw Rachel in the doorway. Her face was ashen, her eyes frozen in an incredulous stare.

She fled back down the hall and he laughed at her dismay as he helped himself to several more drinks.

A half hour later he went back to the window and was reassured when he saw that Rawlins' plain-clothes men hadn't left their posts. Then he lay on the divan and reviewed his day's work. No, he hadn't slipped up anywhere. The trap was escapeproof. Infield could do nothing but meet his demand. Complacently, he cupped his hands beneath his head and closed his eyes.

He hadn't meant to sleep, particularly after he had realized Rachel, as Infield's agent, would bear close watching now that she knew he was out to gouge the Foundation. But fatigue and the accumulation of Scotch in his system overruled his intention.

He awoke with a start to find her back in the doorway. Checking his watch, he saw that it was after ten. He had slept three hours.

She inched forward, grimaced. "You—you're not Ronald."

"Surprised?" he asked scornfully. "Didn't Infield tell you? But that's a shame, leaving you in the dark."

Her eyes were like coals and her chest heaved beneath the soft folds of her silk blouse.

"But I guess he played it in the characteristic Infield manner at that," he added. "You didn't know about me and I didn't know about you and we could keep track of each other without either of us being the wiser."

"Who are you?"

"What difference does it make?"

She dropped into a chair and sobbed against her hands while dark tresses draped part of her face. "Oh, if only I knew!"

"Knew what?"

"What you're trying to do."

"You heard it all on the videophone. I'm putting the gig to Infield. And, Sister, don't try to louse me up."

Remembering that he had to get her out of the house before the Foundation found some way of using her against him, he caught her by the wrist and pulled her into the hall. "On second thought—out you go. I don't want you cluttering up the scenery."

But she pulled back desperately. "No! Wait!"

"For what? For you to get orders from Infield?"

"No! I've got to talk with you!

I've got to take the chance and talk with *somebody!*"

"Tell it to Infield."

"I can't because—I *am* Rachel."

HE drew back and she stared up at him, her pale face contorted with the same degree of confusion that he himself felt.

"At one time," she began, "I was somebody else—somebody whose name I can't even remember. Then that other person became Rachel Winston. But something went wrong. The usurper found from time to time that it was Rachel speaking, acting, thinking instead of herself.

"Those occasions became more frequent. But there was nothing the substitute could do. She couldn't go back to Infield, even while she still had sufficient control. Because she knew he would have had to destroy her."

Sharp straightened with alarm. It couldn't have been that way! She was lying, stalling, trying to confuse him. But he *had* to find out if what she was saying might conceivably be true. For he had already imagined the identical thing happening to himself!

"Yes," she said softly, "I'm Rachel Winston again—fully, completely. And the usurper is but a horrible memory, a vague shadow receding further into the back of my mind."

He tensed. Was Winston stirring within him, jubilant over hearing that his wife had risen up to repossess her identity?

"But you worked for Infield's interest all along!" he reminded. "You became involved with the Fun Houses! You tried to get me to call off the investigation!" Why had he said *me* rather than *Winston*?

"Because I knew how powerful and vicious the Foundation is. And I loved my husband."

He flashed a triumphant grin. "Show's over, Sister! If what you're saying were true, you wouldn't be talking like that. Because you'd know that eventually I'd rise up to overpower the usurper too!"

Rachel was unruffled. "I have no reason to hope that what happened in my case will happen in yours too. Did you know Congressman Jacobs also is an identical plant?"

Numbly, he nodded.

"I knew it from the first," she disclosed. "And when I finally completely suppressed the captor personality, I had to find out if the same thing had happened with Jacobs. I went to his office and spoke cautiously with him. But it was no use. I could tell that, in his case, the usurper was in complete command."

With the back of her hand she wiped her moist cheeks and returned to the living room. Sharp

followed, pouring himself a double Scotch. He swilled it and faced her once more.

"Why are you telling me this?"

"Because I know a lot about Infield and the Foundation. When he first found the girl to groom as my substitute, he was personally attracted to her. He took her into his confidence; told her what his *real* plans were."

"And what are those plans?"

She confronted him earnestly. "Did you know that, during cortical stimulation, hypnotic suggestion can be planted in a person's mind?"

He didn't. Not before now. But suddenly he had more cause to believe her statement than to doubt it. At least, it explained why Infield had been so anxious to get the entire Cultural Affairs Committee into the Fun House. He could have dictated a favorable report on the Foundation.

Sharp shrugged. "So he can make people hop through the hoop without even realizing they're doing it. So what?"

She seized his arms. "Don't you understand? Eighty-six Fun Houses scattered across the country. Who knows how many in two or three years? Thousands of regular customers patronizing each one. And every single client unsuspectingly doing whatever Infield decides they

should do! Voting any way he wants them to in every election! Beating whatever drum he tells them to beat!"

"Good God!" Sharp said in sudden comprehension. But the exclamation, he realized, reflected more astonishment than he actually felt. Could the outburst have been Winston's instead?

"I don't know who you are," Rachel repeated. "Not any more than I can remember who I was before being counterpossessed by Rachel Winston. But if you're going to betray Infield, for God's sake don't do it for a mere two million dollars. Do it for two hundred million people."

## V

STARING at his hands, he knew he would do as she asked. Perhaps because he loved her—if only he could be sure it wasn't merely Winston's love reflected through him. Or maybe he simply wanted to prove he, too, could rally to a dignified cause. However, the possibility his mandate might be *making* him react sympathetically to Rachel's plea didn't even occur to him.

"What can we do?" he asked.

"If what you told Infield is true, then you have him in a trap, for the moment at least. But you'll have to spring it right away—before he wiggles out."

"If I release that evidence, don't you see what it'll mean for us? We're both accessories to murder!"

"I don't care what it means. Because Ron wouldn't have either. Just get those documents out into the open before Infield finds a way to destroy them!"

But the videophone rang before he could reach it. He energized the screen and watched Rawlins' face materialize.

"I—I don't know what to say, Ron," the police captain offered sympathetically, "except that I'm sorry. Damned sorry."

"What are you talking about?" Sharp glanced at Rachel and she returned his confounded stare.

"Of course I didn't believe Infield at first," the other assured painfully. "Nothing on earth could have made me swallow it. But then, when you confirmed his charges, well—"

Rawlins shook his head. "But that's all water under the bridge. At any rate, I wouldn't have called at this time except to tell you I've pulled my men back in. It's obvious you won't be needing them."

Sharp tried to cover his confusion. "No, of course not. I—"

"If there's any way I can help, let me know," Rawlins said awkwardly, then switched off.

When Sharp only stared in bewilderment at Rachel, she ex-

plained, "Don't you see? Infield's *already* landed on his feet!"

"But I don't understand."

She turned on the television set. The image of a grim-faced newscaster formed above block letters that spelled "BULLETIN."

". . . appears doubtful, however," the man was saying, "that there will be an indictment before next week, since Winston has indicated he will offer a full explanation at Monday's session of his subcommittee's Fun House hearing."

Rachel tugged on his arm. "Let's get out of here!"

"Wait! I've got to hear what's happened!"

". . . and we repeat," the newscaster was summing up, "that the extortion attempt charged by Leonard Infield has been verified by Winston at the House Office Building."

"Extortion!" Sharp shouted at the screen. "But he *couldn't* let that get out! It would—"

Abruptly the newscaster's image was replaced by that of Winston before microphones in his office suite.

"It's *me!*" Sharp cried. "It's *another* Winston!"

"At this moment," said the figure on the screen, his face drawn, "I am crushed. I have betrayed my constituency. Infield claims to have evidence of an attempt by me to extort money from him.

And he does have that evidence."

The newscaster supplanted Winston. "The evidence was gathered by Infield himself. A hidden-eye camera was reportedly used as Winston met with him secretly and offered to sabotage his Fun House investigation for two million dollars."

Videotape brought Winston back again. "I choose," he said, his voice breaking, "to throw myself on the mercy of the American people. Toward that end, I must be fully candid. I planned the entire Fun House investigation because I saw the opportunity to blackmail the Foundation for Electronic Cortical Stimulation."

Returning, the newscaster said, "We now show the evidence gathered by Infield to—"

RACHEL snapped off the set. "We've got to get out of here!" she pleaded. "Don't you see that if Infield's counterattack is going to succeed, he'll have to pick you up—*right away?*"

But Sharp was dumbfounded. "A *third* Winston! I don't—"

"A third, a fourth, a fifth," she tried desperately to explain, "—as many as he's prepared the physical likenesses for. Don't you understand? Just as he redesigned you to resemble Ronald, he redesigned someone else after the same pattern at the same time. He held the third Ronald in

reserve. And when he found out what you were going to do he ran in the new substitute right away! Now he has to cover up by destroying the second!"

"But didn't I receive *all* of Winston's mental impressions? How could anybody else carry off the role without the?"

"Transfer isn't just a one-shot deal. The impressions can be stored on tape and passed on to a second person, or even a third!"

If she was right, then Infield *would* have to destroy him immediately! The new Winston would fill the gap. Moreover, his mere presence would keep Thornton from releasing the evidence against the Foundation. But Infield must react at lightning speed to avoid having *two* Winstons afoot!

"Good God!" he exclaimed. "Let's clear out!"

He turned off the light and lunged to the window. Outside, the police car was gone. But another vehicle, running without headlights, was pulling up in front of the house. Four men sprang out and sprinted across the lawn.

He caught Rachel's hand and raced down the hall into the kitchen. He jerked open the back door, then stalled in his tracks. Dismayed, he retreated into the room. Adler, brandishing a revolver and flanked by two other men, followed him in.

Rachel let a relieved flow of air hiss through pursed lips. "God! I thought you would never get here! I almost ran out of gas trying to make him sit still. It was touch and go."

"Good work," Adler sid as the other two men seized Sharp.

"The boss ran in another Winston, huh?" she asked.

"Had to. But everything's under control now."

"What's the new one like?"

"Like a sucker. He'll have to serve a prison term for attempted extortion."

"I just hope Infield set him straight about me. I don't want him thinking he gets me in a black negligee as part of the bargain."

Sharp lunged against this captors' grip and Adler swore, bringing the revolver chopping down against his skull.

THE murmur of tires upon asphalt attended Sharp's return to consciousness. He tried to bring a hand up to his scalp, but someone on his right slapped it down. From his left, a revolver flashed menacingly before his face.

Illuminated briefly by the on-rushing glare of headlights, sparsely-settled countryside slipped swiftly past the car and was swallowed once again by obscuring night.

In the sedan's front seat, Ra-

chel sat beside Adler, the intermittent glow from her cigarette lighting up the reflection of her face in the windshield.

Adler slowed for a curve, then sent the car racing ahead.

"How much farther?" she asked.

"We reach the turnoff in about six or eight miles."

"Then step it up. Let's get this over with."

"What's the hurry? We have to wait anyway until Brown and Kessleman bring Winston's body."

She put out her cigarette and hugged herself.

"What's the matter with you?" Adler asked.

"Cold." She moved closer to him.

Sharp shook his head but couldn't clear away the throbbing pain. Then he found himself looking at Rachel again. Behind his stare was a pall of bitter disappointment and despair. But it was a moment before he sensed that the despondency was not his. *Winston?* he thought tentatively.

There was no response.

*You are there, aren't you? And I wasn't just imagining your half of the conversation the last time we spoke?*

*No, you weren't.*

*What Rachel said—it's true? You can take over?*

*Yes.*

Sharp felt no sudden grip of terror. Under the circumstances, it made no difference that his own identity would have eventually been submerged, that *he* would have been *Winston's* prisoner while his own psyche atrophied.

*Yes, Winston repeated. I was certain all along that I could prevail any time I wanted to. I even tried it out last night.*

Sharp remembered carrying on his incredible conversation with the other—only to find himself walking about the room against his will, doing the things Winston wanted him to.

*Even when you imagined you were on your own all today, the Congressman continued, I was planting the ideas, letting you think you were acting in furtherance of your own motives.*

No further thoughts passed between them for a moment—until Sharp remembered how the other had worked with him in the Enchantment Room. Then he asked, *Isn't there anything we can do now?*

*With a gun on both sides of us and one in front?*

*But we can't just sit here!*

*If you've got a better plan, let's have it. All we can do is wait for a break—or make our own ultimately.*

But even the remote prospect of escape failed to stir Sharp's enthusiasm. For escape would

only revive the inevitability of his descent into nonentity. Unless—

*Winston, you're bluffing! You can't take over!*

*No? What's your name?*

*Huh?*

*I said what's your name?*

*Why, it's—it's—*

*See?*

Desperation surged over Sharp. *It's—Spear!*

Winston laughed. *There you are. What's your first name?*

Sharp racked his memory but found nothing.

"I don't know!" he cried aloud. "God, I don't know!"

The gun reappeared before his face as the man on his right asked, "What's with him?"

Adler slowed for the turnoff and Rachel sidled closer to him.

SHARP couldn't be certain, but he imagined that just before the car careened on its two left tires at the full sweep of its turn she had tugged frantically on the wheel.

Adler shouted and shoved her away. But it was too late. With brakes squealing, the car crunched over on its side and rolled onto its top in the ditch. The revolver went off in Sharp's face. But it was Ronald Winston who disengaged himself from the mass of men and dislodged seats and managed to seize the weapon.

Someone kicked him in the face, but he scampered over the clawing form and pulled himself past the sprung door.

As the man caught his leg, he turned and fired twice and the other lay still.

Cautiously, he forced open the front door and pulled Adler from behind the wheel. There was a smear of blood on the unconscious man's forehead.

He left him there in the ditch, then back off to listen for sounds within the car. But there was none.

So he went forward again and tugged the third man free. In the reflected glare of the headlights, he discovered the reddish-black puncture above the left temple—made, he surmised, by the slug that had just missed his own face.

Now there was motion in the car and when he heard a groan he wrested open the other front door. Rachel toppled out and lay there trembling and sobbing.

"You all right, hon?" He helped her up.

"I—I think so. My ankle. I can't stand on it."

"You caused the wreck?"

"I had to. There wasn't any other way."

"Then—back there in the kitchen—it was just an act? You really *are* Rachel again?"

She nodded and touched a bruise on her cheek.

Adler was beginning to stir. Winston went quickly around the car. He knelt, ran his hand beneath the man's coat and relieved him of his gun.

Rachel limped after him. "You—you called me 'hon'!" she stammered. "You didn't say 'sister'!"

"That's what I've always called you, isn't it?"

He kept the gun trained on Adler as the latter struggled erect.

"First thing you're going to do," Winston directed, "is call Infield and tell him you accomplished your chore tonight."

**I**T was a humiliated Congressman Winston who stood before the microphone and appeared small and frightened in the blaze of television spotlights Monday morning.

An additional press table had been moved into the chamber, but there was no sharp line separating reporters and cameramen from the crowd that spilled over onto the floor from the gallery.

Ted Thornton, subcommittee counsel, sat with hands folded on the table.

In the first row of the spectator section, Rachel Winston held a crumpled handkerchief to her face. Together with the floppy-brimmed hat, it fully concealed the contusion on her cheek.

Infield shifted at the table,

turning frequently to glance at the TV cameras and bringing his eyes back each time to stare at the chastened figure before the microphone.

"It is therefore with a deep sense of mortification," Winston resumed in a tremulous voice, "that I resign the trust which the good people of my district placed in me. I—"

A lone figure strode down the aisle. In passing Rachel Winston, he slowed and let his hand drop upon her shoulder.

Then he drew up at the main table. "Congressman Winston, I am Police Captain Stanley Rawlins. I have a warrant for your arrest."

Head lowered, the Congressman went around the table. His arm secured in Rawlins' grip, he was marched back down the aisle.

Outside the chamber, he glanced down the corridor, then bolted. But two uniformed officers seized him, one of them clamping a hand over his mouth.

Bewildered, the prisoner traced the approach of the person whose appearance had brought the panicky shout to his throat.

The newcomer drew up before Rawlins. "How'd it go?"

"Fine. The stage is prepared. It's your show now."

"Everything in order?"

"Everything. Thornton has

the envelope Sharp had him put in his safety deposit box yesterday."

"What about your end of it?"

"We're all set." Rawlins indicated a uniform policeman who waited nearby holding a large cardboard carton. "Twenty-four by thirty pictures of Infield's body-moving detail."

Representative Ronald Winston gripped Rawlins' hand, then headed for the committee chamber. Could he feel a certain reluctance to push ahead? Possibly. After all, the psychic evidences of Sharp's presence would remain with him for a while. But the effects would be inconsequential. For, faced with the finality of permanent suppression, he had lapsed into a catatonic stupor.

Rawlins overtook Winston just before he reached the door. "Almost forgot. Adler threw in the towel on his fourth or fifth lump. We're getting him over here so he can support everything you say."

Winston entered the chamber and proceeded down the aisle, drawing puzzled stares all the way. At the main table, he closed in on a startled Congressman Jacobs, who was adjourning the hearing. Forcing the man from the microphone, he drew in a breath and paused.

Infield, apparently noticing that Winston had returned in too

brief a time to have changed his clothes completely, broke first.

But as he lunged for the exit, someone in the gallery leaped into his path and seized him. Winston recognized the person as one of the plainclothes men who had guarded his home.

Jacobs tried to sidle out the rear entrance. But Thornton trapped his wrist and held him until another plainclothes man arrived.

Winston held up his arms for order.

"Jacobs and Infield," he said calmly, "are being held for murder. This ends the Fun House investigation. And I am now in position to explain all the confusion you have just witnessed..."

LATER that day, as Captain Rawlins' men barred their home to a persistent press, Winston and Rachel sat soberly beside each other on the divan. Across the room, Ted Thornton, Rawlins, Judge Farriday and two men from the Justice Department discussed the issue with much gesticulation.

Winston went over and spread his arms. "You don't have any choice, Stan," he told Rawlins. "You're going to have to take me in too."

"Why?" Rawlins and Thornton asked in unison.

"Because you can't be sure whether I'm Winston or Sharp."

With a "hrmph," Judge Farriday signified his refusal to be confused. "Ask those crowds tearing down Fun Houses all over the country who *they* think you are."

"It seems to me," said one of the men from the Justice Department, "that this is all something totally outside our reach anyway. It'll have to be decided elsewhere."

Concerned, Rachel hobbled over and Winston put his arm around her waist.

"Where?" she asked.

"Yes, where?" he echoed.

The door chimes sounded and Rawlins left to answer them.

"Where?" Farriday repeated, hunching his shoulders. "I don't know. But you and Rachel, I'm sure, are an issue that's certainly beyond the jurisdiction of any court."

"Then who *will* decide?" Winston demanded.

"The body of public opinion, I suppose."

Rawlins returned with a short, stout man who paused in the hallway until he saw Winston. Then, beaming, he pushed on into the room, his hand extended toward the Congressman.

"Ron, this is ridiculously unbelievable!" he exclaimed. "But it's good—good."

"Who's he?" Judge Farriday wanted to know.

And Winston introduced Frank Wentworth, chairman of the Illinois State Central Committee.

"All I know," Wentworth said, still grinning, "is that there isn't a Republican or Democrat back home who isn't proud of you. How'd you like to try for the Senate next year?"

#### THE END

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#### EDITORIAL

(Continued from page 5)

say, if we can actually do that kind of a job, then we have a right—indeed, a duty—to do it because *we* are therefore obviously better than *they*.

But ethics and morals are not

now, nor have they ever been, a function of technological competence. Rather the contrary. Perhaps NASA ought to send up a psycho-satellite to see if space travel may give man a little more humility in his attitude toward the Cosmos. —NL

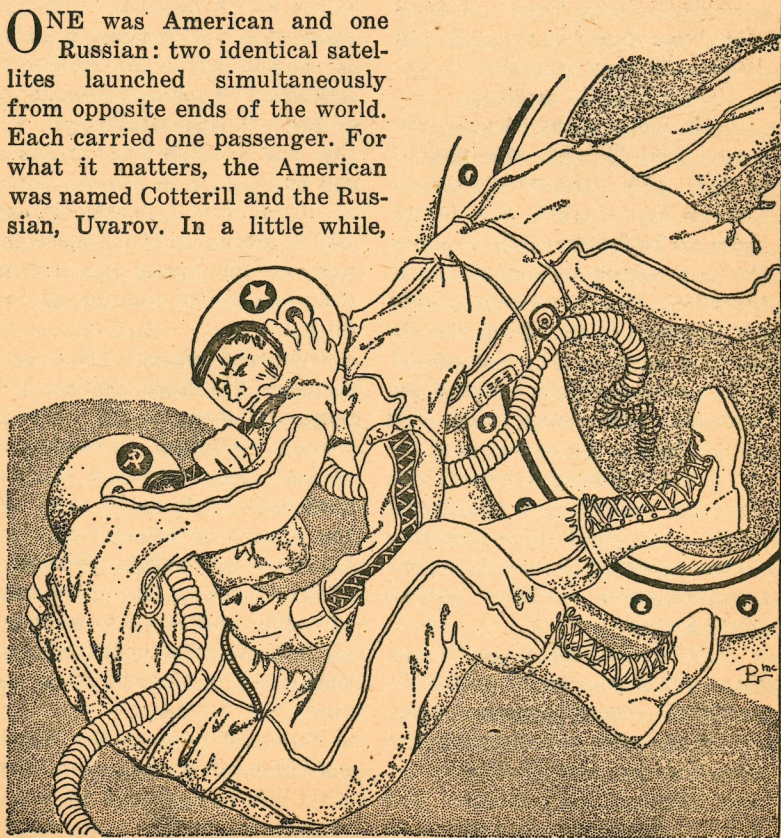
# the mouths of all men

By ED M. CLINTON

Illustrated by McLANE

**The idea of a joint US-USSR rendezvous-in-space experiment is now under serious consideration. This story, in true s-f tradition, extrapolates from there with a certain grim reality. Read it and weep.**

ONE was American and one Russian: two identical satellites launched simultaneously from opposite ends of the world. Each carried one passenger. For what it matters, the American was named Cotterill and the Russian, Uvarov. In a little while,



without willful action on the part of either man, the two satellites would come gently together, two disparate societies would embrace in the cold neutrality of space, and then they would return to earth as one.

It was a magnificent gesture, and as magnificently futile as any gesture must be. While Cotterill and Uvarov in their tiny man-made worlds spun in silken silence high above, somebody down below was impelled to push The Button. It was probably a mistake; but that is academic.

Each, alone, watched man consume himself with the fire of parted and conjoined atoms. Uvarov had slightly the better show, as he happened to be above the most populous hemisphere at the time. But there was plenty for Cotterill to see. Each was, to say the least, equally impressed.

The two satellites, bearing the last two men living, men with names but no countries now because the fiction of countries was no more, arced across the sky of earth. But there were no eyes down there to look up and see the stars-not-stars moving toward one another.

A failure in all other things, man was a successful mechanic, and with perfect automatic precision the two satellites at last drew together, grappled in a complex dance of technological love and death, and then moved as one

across the unseen skies of earth.

**B**OTH men could tell from their instrument panels that the moment of contact was imminent. Both watched the dials and lights recount the succession of events that began when the two satellites were fifty miles apart. What followed was one of a thousand automatic sequences programmed into their computer circuits; which satellite performed what steps was entirely a matter of chance until their specific relationship in space at the moment of contact was established. Neither the Russian nor the American had known in advance which of them was to cycle through which maneuvers; it had been a part of the game, part of the compromise in setting up the flight.

It turned out to be the American satellite that jettisoned its engines. Next, both satellites turned, pitched, yawed, and aligned one to another, the Russian behind. It could have been the other way around, had their spatial relationships differed by a few degrees. New increments of action and reaction were added to their movements in anticipation of actual physical contact.

Now the nose of the Russian satellite spun, detached itself, and fell away; and where the American satellite's engines had

been, the instrumented noseless forward section of the Russian craft came to rest. The mating completed circuits along which signals moved to carry out the final moments of the rendezvous.

The entire maneuver was a matter of seconds; and at last, high over the burning earth, futilely and too late, East and West were at last one. There was nobody left on earth to see or care.

THE rendezvous maneuvers had been accompanied by moments of slight and discontinuous gravity, tugging Cotterill this way and that in the constraint couch. But when the gentle jar of first contact was over, the weightlessness returned. Cotterill clawed at the buckle on the restraining belt, his fingers fumbling with haste. By the time the hiss of the intercapsule air connection had stopped, he was sitting on the edge of the couch, aware of his awkward weightlessness and fighting to monitor his movements in accordance with the fact. The buzzer that had been a steady reminder that rendezvous operations were in progress stopped; he stood up and, being a tall man, bumped his head. The constraint couch and the biomedical equipment left just enough room in the satellite for a man to stand and take a step, and no more; only in the exact center of the tiny chamber

could Cotterill remain upright.

He coiled. The intercapsule door, formed as the penultimate step in the rendezvous sequence, slid aside, and he started moving. His hands were fists and he screamed filth as he leaped, forgetting finally the fact of his weightlessness: he shot toward the door like an ill-made projectile.

The two of them, Cotterill and Uvarov, ex-American and ex-Russian, came together almost exactly at the point where the two satellites joined. They were moving at almost the same speed, Cotterill screaming and Uvarov shouting. The Russian was the more massive man, and when they collided, Cotterill bounced. but he clung to Uvarov and carried him with him back into his own capsule. They spun, an erratic human pinwheel, bumping and ricocheting from walls and floor and instrument panel.

Locked in the ecstasy of unlove, they smashed against the constraint couch. Cotterill hit his head on a solid edge, and he felt his scalp tear and he was momentarily blind with pain; but he kept on clawing and kicking. Uvarov's fingers dug into his throat and for a while Cotterill could not breathe. He kicked, aiming for Uvarov's groin, and found it; Uvarov shrieked, but let go only of Cotterill's throat, not his body.

Uvarov's recoil sent them soaring across the enclosure, each gesture by either of them careening and driving them this way and that, a flailing, weightless mass almost filling the chamber. Once they separated, speared apart by the outthrust foot of the couch, and bounced from the floor and the overhead to come smashing together again. Cotterill's chin struck the Russian's head, and he felt teeth shatter. Then, skidding together, they jammed in the intercapsule door.

Cotterill felt warm liquid on his fingers, and knew with satisfaction that somewhere he had torn the Russian's flesh. He thrust the bloody hand at Uvarov's face, twisting the knuckles as he did; the Russian dodged, and Cotterill missed, and the force of his swing popped them loose from the door and into the Russian capsule, identical with the American save for the instrument nomenclature.

AND so they fought, clawing and tearing and kicking, swearing and shouting, frenzied hatred inside a space three strides long and six and a half feet high, until their faces were so bloody they could no longer see and until they had no more strength with which to fight.

Cotterill lay face down, stretched through the intercap-

sule door, his head in his capsule and his feet in Uvarov's. His body ached and he could hardly breathe because of the blood in his nose and throat. He wiped his face with a torn hand that he could just barely move, but only put more blood in his eyes. He thought: I have lost; and he waited for death.

But death did not come. There was only the sound of the air pumps behind the walls, and the only movement was the twitching of his outstretched fingers against the metal floor.

Finally he found strength enough to push himself up on one elbow. The movement lifted his weightless body from the floor so that he perched like an upended statue. He peered around. He swallowed, and then he vomited blood.

Uvarov hung in the air in a foolish, half-sitting position, his back against the instrument panel of his capsule, his legs sticking out in front of him. He was breathing slowly and loudly, blood gargling in his throat; and his eyes were staring.

From where he was Cotterill could see through the porthole. The flames of earth were less bright than a while before. There were none of the glowing clusters of city lights that had been visible during the first orbits.

Uvarov turned his head and looked through the porthole also;

and then the two men looked at each other.

A part of their training had been the other's language. "I'm afraid we've made a mess in here, Uvarov."

Uvarov shrugged. "It's no matter."

Blood was scattered in drops and streaks on the floor and overhead, on the instrument panels, on the couches, and it floated in little clusters of red spheres in the air.

They looked through the port-hole again.

"That," said one, nodding toward the dead earth. "Did you see who started it?"

"Yes. But it makes no difference."

The silence was longer this time. The air pumps hummed.

"Did you have a family down there?" asked Uvarov.

"Yes. A wife and two boys. And you?"

"We had five. Two boys also, and three girls."

"I have some pictures here." Cotterill slid a thin folder from the breast pocket of his uniform, bloodying it as he unfolded it, like a tiny accordion. "Here." He pushed gently against the door and drifted to Uvarov's side. The Russian took the folder and examined the photographs. He smiled and tapped one of the pictures. "Your wife was beautiful," he said.

UVAROV handed him one snapshot, also kept in the pocket of his uniform. It was a group picture of his whole family. "Dr. Nabikov took this a little while before the launching," he said.

Each took back his photographs, and regarded them for a moment before putting them away again. Then they watched the earth turning below them. They were now over the sunlit hemisphere.

"I suppose," said Uvarov, "that we are the last men alive."

Cotterill did not even shudder. "I expect so."

"Then I believe we have certain duties."

"To wind up the affairs of mankind?"

"You may put it that way. My thought is that we must end the human race with dignity."

"By all means." Cotterill smiled at his new, last, and best friend. "It also occurs to me that we are the highest ranking officials of our governments."

Uvarov laughed. "So we are. But is that so important?"

"It represents an item of unfinished business." Cotterill pointed at the earth. "I think this should be resolved before the human race is ended. Man shouldn't just stop with unfinished business." He smiled. "Understand, I'm not being mystical about this."

"Nor I. So let's proceed. Have you anything to write on?"

Cotterill shook his head.

They looked around. "This instrument panel might serve," said Uvarov. He rubbed it with his fingernail. "It's plastic. Have you anything which might scratch it?"

Cotterill slipped a ring from his finger. "This is not a diamond, but it might work."

Uvarov tried it on the upper corner of the panel. It left a neat gouge. "It will do."

The air pumps hummed. Neither man spoke for a while. At last: "I suggest that we begin, 'We, John Cotterill and Vasily Uvarov, representing respectively the governments of the United States of America and the Soviet Union—'"

"Do hereby agree that peace is proclaimed forever," said the other. "Something like that."

"But there must be something about responsibility."

They gazed silently at each other for a moment, and then at the carcass of the earth.

Uvarov said: "I suggest, 'wish to affirm mutual responsibility for the destruction of mankind.'" He choked.

Cotterill closed his eyes. "A little more. Perhaps, 'wish to affirm that our governments, having failed, are mutually responsible for the destruction of mankind.'"

Uvarov shifted his hand, and the movement caused his body to drift a little. He caught hold of the constraint couch and pushed himself back. "Penitence is not enough. We must also proclaim the peace."

"Absolutely. Let me see. . . . 'and we do hereby agree that henceforth man shall live in peace.' How do you like that?"

"How many times has that proclamation been made before?" He mused. "I suggest we add, 'as he should heretofore have lived.'"

"Are we making this too complicated?"

THEY thought for a long time. Then one said: "After all, I think just this much, and no more: 'We, John Cotterill and Vasily Uvarov, speaking as the mouth of all men of all time, hereby agree that as he has lived in war, Man shall die in peace.'"

The other said: "That will do, I think. The rest is mere vanity."

Uvarov took the ring and, in Russian, scratched upon the plastic panel the last declaration that man would ever make. It took a while. With a flourish he incised his signature below and handed the ring to Cotterill.

The American brushed the surface of the gem lightly against his uniform and interlineated the words in English. When he had

*(Continued on page 123)*



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# PLACEMENT TEST

By KEITH LAUMER

Illustrated by FINLAY

*In a city of 100,000,000 people, there is a special need for Top Executives. Maldon had expected, ultimately, to be one. But now he couldn't even pass the exams for toll collector.*

READING the paper in his hand, Mart Maldon felt his mouth go dry. Across the desk, Dean Wormwell's eyes, blurry behind thick contact lenses, strayed to his fingerwatch.

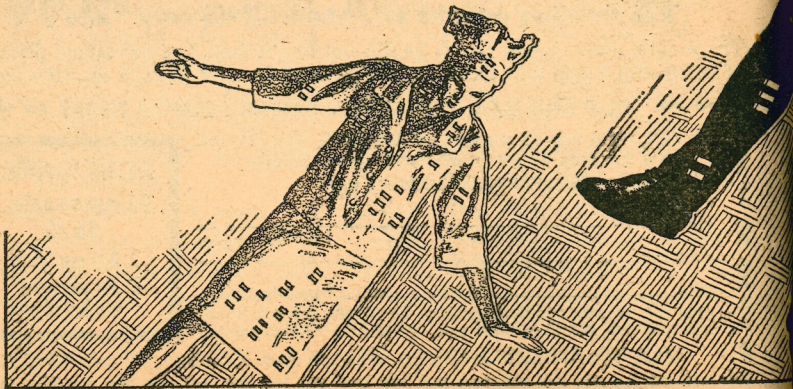
"Quota'd out?" Maldon's voice emerged as a squeak. "Three days before graduation?"

"Umm, yes, Mr. Maldon. Pity, but there you are . . ." Worm-

well's jowls twitched upward briefly. "No reflection on you, of course . . ."

Maldon found his voice. "They can't do this to me—I stand number two in my class—"

Wormwell held up a pudgy palm. "Personal considerations are not involved, Mr. Maldon. Student load is based on quarterly allocated funding; funds





Virgil  
Finlay

were cut. Analogy Theory was one of the courses receiving a quota reduction—”

“An Theory . . ? But I’m a Microtronics major; that’s an elective—an optional one-hour course—”

The Dean rose, stood with his fingertips on the desk. “The details are there, in the notification letter—”

“What about the detail that I waited four years for enrollment, and I’ve worked like a malemute for five more—”

“Mr. Maldon!” Wormwell’s eyes bulged. “We work within a system! You don’t expect *personal* exceptions to be made, I trust?”

“But, Dean—there’s a howling need for qualified Microtronic Engineers—”

“That will do, Mr. Maldon. Turn in your student tag to the Registrar and you’ll receive an appointment for Placement Testing.”

“All right” Maldon’s chair banged as he stood up. “I can still pass Testing and get Placed; I know as much Micro as any graduate—”

“Ah—I believe you’re forgetting the limitation on non-academically qualified testees in Technical Specialty Testing. I suggest you accept a Phase Two Placement for the present . . .”

“Phase Two—But that’s for unskilled labor!”

“You need work, Mr. Maldon. A city of a hundred million can’t support idlers. And dormitory life is far from pleasant for an untagged man.” The Dean waited, glancing pointedly at the door. Maldon silently gathered up his letter and left.

2

IT was hot in the test cubicle. Maldon shifted on the thinly-padded bench, looking over the test form:

1. In the following list of words, which word is repeated most often: dog, cat, cow, cat, pig . . .

2. Would you like to ask persons entering a building to show you their pass?

3. Would you like to check forms to see if the names have been entered in the correct space?

“Testing materials are on the desk,” a wall-speaker said. “Use the stylus to mark the answers you think are correct. Mark only one answer to each question. You will have one hour in which to complete the test. You may start now . . .”

\* \* \*

Back in the Hall twenty minutes later, Maldon took a seat on a bench against the wall beside a heavy-faced man who sat with one hand clutching the other as though holding a captured

mouse. Opposite him, a nervous youth in issue coveralls shook a cigaret from a crumpled plastic pack lettered GRANYAUCK WELFARE—ONE DAILY RATION, puffed it alight, exhaled an acrid whiff of combustion retardant.

"That's a real smoke," he said in a high, rapid voice, rolling the thin, greyish cylinder between his fingers. "Half an inch of doctored tobacco and an inch and a half of filter." He grinned sourly and dropped the cigaret on the floor between his feet.

The heavy-faced man moved his head half an inch.

"That's safety first, Mac. Guys like you throw 'em around, they burn down and go out by themselves."

"Sure—if they'd make 'em half an inch shorter you could throw 'em away without lighting 'em at all."

Across the room a small man with jug ears moved along, glancing at the yellow or pink cards in the hands of the waiting men and women. He stopped, plucked a card from the hand of a narrow-faced boy with an open mouth showing crowded yellow teeth.

"You've already *passed*," the little man said irritably. "You don't come back here anymore. Take the card and go to the place that's written on it. Here . . ." he pointed.

"Sixteen years I'm foreman of

number nine gang-lathe at Philly Maintenance," the man sitting beside Mart said suddenly. He unfolded his hands, held out the right one. The tips of all four fingers were missing to the first knuckle. He put the hand away.

"When I get out of the Medicare, they classify me J-4 and send me here. And you know what?" He looked at Mart. "I can't pass the tests . . ."

"Maldon, Mart," an amplified voice said. "Report to the Monitor's desk . . ."

HE walked across to the corner where the small man sat now, deftly sorting cards. He looked up, pinched a pink card from the stack, jabbed it at Maldon. Words jumped out at him: NOT QUALIFIED.

Mart tossed the card back on the desk. "You must be mixed up," he said. "A ten year old kid could pass that test—"

"Maybe so," the monitor said sharply. "But you didn't. Next testing on Wednesday, eight A. M.—"

"Hold on a minute," Mart said. "I've had five years of Microtronics—"

The monitor was nodding. "Sure, sure. Come back Wednesday."

"You don't get the idea—"

"You're the one that doesn't get the idea, fellow." He studied Maldon for a moment. "Look,"

he said, in a more reasonable tone. "What you want, you want to go in for Adjustment."

"Thanks for the tip," Maldon said. "I'm not quite ready to have my brains scrambled."

"Ha! A smart-alec!" The monitor pointed to his chest. "Do I look like my brains were scrambled?"

Maldon looked him over as though in doubt.

"You've been Adjusted, huh? What's it like?"

"Adjustment? There's nothing to it. You have a problem finding work, it helps you, that's all. I've seen fellows like you before. You'll never pass Phase Two testing until you do it."

"To Hell with Phase Two testing. I've registered for Tech Testing. I'll just wait."

The monitor nodded, prodding at his teeth with a pencil. "Yeah, you could wait. I remember one guy waited nine years; then he got his Adjustment and we placed him in a week."

"Nine years?" Maldon shook his head. "Who makes up these rules?"

"Who makes 'em up? Nobody! They're in the book."

Maldon leaned on the desk. "Then who writes the book? Where do I find them?"

"You mean the Chief?" the small man rolled his eyes toward the ceiling. "On the next level up. But don't waste your time,

friend. You can't get in there. They don't have time to argue with everybody who comes in here. It's the system—"

"Yeah," Maldon said, turning away. "So I hear."

3

MALDON rode the elevator up one floor, stepped off in a blank-walled foyer, adorned by a stone urn filled with sand, a potted yucca, framed unit citations and a polished slab door lettered PLACEMENT BOARD—AUTHORIZED PERSONNEL ONLY. He tried it, found it solidly locked.

It was very quiet. Somewhere, air pumps hummed. Maldon stood by the door and waited. After ten minutes, the elevator door hissed open, disgorged a slow-moving man in blue GS coveralls with a yellow identity tag. He held the tag to a two-inch rectangle of glass beside the door. There was a click. The door slid back. Maldon moved quickly, crowding through behind the workman.

"Hey, what gives," the man said.

"It's all right, I'm a coordinator," Maldon said quickly.

"Oh." The man looked Maldon over. "Hey," he said. "Where's your I.D.?"

"It's a new experimental system. It's tattooed on my left foot."

"Hah!" the man said. "They

always got to try out new stuff." He went on along the deep-carpeted corridor. Maldon followed slowly, reading signs over doors. He turned in under one that read CRITERIA SECTION. A girl with features compressed by fat looked up, her lower jaw working busily. She reached, pressed a button on the desk top.

"Hi," Maldon said, using a large smile. "I'd like to see the chief of the section."

The girl chewed, looking at him.

"I won't take up much of his time . . ."

"You sure won't, Buster," the girl said. The hall door opened. A uniformed man looked in. The girl waved a thumb at Maldon.

"He comes busting in," she said. "No tag, yet." The guard jerked his head toward the corridor. "Let's go . . ."

"Look, I've got to see the chief—"

The cop took his arm, helped him to the door. "You birds give me a swifty. Why don't you go to Placement like the sign says?"

"Look, they tell me I've got to have some kind of electronic lobotomy to make me dumb enough to be a receptionist or a watchman—"

"Let's watch them cracks," the guard said. He shoved Maldon out into the waiting room. "Out! And don't pull any more fasties until you got a tag, see?"

SITTING at a shiny imitation-oak table in the Public Library, Mart turned the pages of a booklet titled *Adjustment Fits the Man to the Job*.

"... neuroses arising from job tension," he read at random. "Thus, the Adjusted worker enjoys the deep-down satisfaction which comes from Doing a Job, free from conflict-inducing non-productive impulses and the distractions of feckless speculative intellectual activity . . ."

Mart rose and went to the librarian's console.

"I want something a little more objective," he said in a hoarse library whisper. "This is nothing but propaganda."

The librarian paused in her button-punching to peer at the booklet. "That's put out by the Placement people themselves," she said sharply. She was a jawless woman with a green tag against a ribby chest and thin, black-dyed hair. "It contains all the information anyone needs."

"Not quite; it doesn't tell who grades Placement tests and decides who gets their brain poached."

"Well!" the woman's button chin drew in. "I'm sure I never heard Adjustment referred to in *those* terms before!"

"Do you have any technical information on it—or anything

on Placement policy in general?"

"Certainly not for indiscriminate use by—" she searched for a word. "—browsers!"

"Look, I've got a right to know what goes on in my own town, I hope," Mart said, forgetting to whisper. "What is it, a conspiracy . . . ?"

"You're paranoid!" The librarian's lean fingers snatched the pamphlet from Maldon's hand. "You're all alike! You come stamping in here—without even a tag—a great healthy creature like you—" her voice cut like a sheet-metal file. Heads turned. "You're a troublemaker."

"All I want is information—"

"—living in luxury on MY tax money! You ought to be—"

5

IT was an hour later. In a ninth-floor corridor of the GRAN-YAUCK TIMES HERALD building, Mart leaned against a wall, mentally rehearsing speeches. A stout man emerged from a door lettered EDITOR IN CHIEF. Mart stepped forward to intercept him.

"Pardon me, sir. I have to see you . . ."

Sharp blue eyes under wild-growing brows darted at Maldon.

"Yes? What is it?"

"I have a story for you. It's about the Placement procedure."

"Whoa, buddy. Who are you?"

"My name's Maldon. I'm an Applied Tech graduate—almost—but I can't get placed in Microtronics. I don't have a tag—and only way to get one is to get a job—but first I have to let the government operate on my brains—"

"Hmmp!" The man looked Maldon up and down, started on.

"Listen!" Maldon caught at the portly man's arm. "They're making idiots out of intelligent people so they can do work you could train a chimp to do, and if you ask any questions—"

"All right, Mac . . ." A voice behind Maldon growled. A large hand took him by the shoulder, propelled him toward the walk-away entrance, urged him through the door. He straightened his coat, looked back. A heavy-set man with a pink card in a plastic cover clipped to his collar dusted his hands, looking satisfied.

"Don't come around lots," he called cheerfully as the door slammed.

6

HI, Glamis," Mart said to the small, neat woman behind the small, neat desk. She smiled nervously, straightened the mathematically precise stack of papers before her.

"Mart, it's lovely to see you

again, of course . . ." her eyes went to the blank place where his tag should have been. "But you really should have gone to your assigned SocAd Advisor—"

"I couldn't get an appointment until January." He pulled a chair around to the desk and sat down. "I've left school. I went in for Phase Two Placement testing this morning. I flunked."

"Oh . . . I'm so sorry, Mart." She arranged a small smile on her face. "But you can go back on Wednesday—"

"Uh-huh. And then on Friday, and then the following Monday—"

"Why, Mart, I'm sure you'll do better next time," the girl said brightly. She flipped through the pages of a calendar pad. "Wednesday's testing is for . . . ah . . . Vehicle Positioning Specialists, Instrumentation Inspectors, Sanitary Facility Supervisors—"

"Uh-huh. Toilet Attendants," Mart said. "Meter Readers—"

"There are others," Glamis went on hastily. "Traffic flow coordinators—"

"Pushing stop-light buttons on the turnpike. But it doesn't matter what the job titles are. I can't pass the tests."

"Why, Mart . . . Whatever do you mean?"

"I mean that to get the kind of jobs that are open you have to be a nice, steady moron. And if you

don't happen to qualify as such, they're prepared to make you into one."

"Mart, you're exaggerating! The treatment merely slows the synaptic response time slightly—and its effects can be reversed at any time. People of exceptional qualities are needed to handle the type work—"

"How can I fake the test results, Glamis? I need a job—unless I want to get used to Welfare coveralls and two T rations a day."

"Mart! I'm shocked that you'd suggest such a thing! Not that it would work. You can't fool the Board that easily—"

"Then fix it so I go in for Tech testing; you know I can pass."

She shook her head. "Heavens, Mart, Tech Testing is all done at Central Personnel in City Tower—Level Fifty. Nobody goes up there, without at least a blue tag—" She frowned sympathetically. "You should simply have your adjustment, and—"

Maldon looked surprised. "You really expect me to go down there and have them cut my I. Q. down to 80 so I can get a job shovelling garbage?"

"Really, Mart; you can't expect society to adjust to *you*. You have to adjust to it."

"Look, I can punch commuters' tickets just as well as if I were stupid. I could—"

Glamis shook her head. "No,

you couldn't, Mart. The Board knows what it's doing." She lowered her voice. "I'll be perfectly frank with you. These jobs *MUST* be filled. But they can't afford to put perceptive, active minds on rote tasks. There'd only be trouble. They need people who'll be contented and happy punching tickets."

Mart sat pulling at his lower lip. "All right, Glamis. Maybe I will go in for Adjustment . . ."

"Oh, wonderful, Mart." She smiled. "I'm sure you'll be happier—"

"But first, I want to know more about it. I want to be sure they aren't going to make a permanent idiot out of me."

She tsked, handed over a small folder from a pile on the corner of the desk.

"This will tell you—"

He shook his head. "I saw that. It's just a throwaway for the public. I want to know how the thing works; circuit diagrams, technical specs."

"Why, Mart, I don't have anything of that sort—and even if I did—"

"You can get 'em. I'll wait."

"Mart, I *do* want to help you . . . but . . . what . . . ?"

"I'm not going in for Adjustment until I know something about it," he said flatly. "I want to put my mind at ease that they're not going to burn out my cortex."

Glamis nibbled her upper lip. "Perhaps I *could* get something from Central Files." She stood. "Wait here; I won't be long."

She was back in five minutes carrying a thick book with a cover of heavy manila stock on which were the words, *GSM 8765-89. Operation and Maintenance, EET Mark II*. Underneath, in smaller print, was a notice:

*This Field Manual for Use of Authorized Personnel Only.*

"Thanks, Glamis." Mart rifled the pages, glimpsed fine print and intricate diagrams. "I'll bring it back tomorrow." He headed for the door.

"Oh, you can't take it out of the office! You're not even *supposed* to look at it!"

"You'll get it back." He winked and closed the door on her worried voice.

7

THE cubicle reminded Mart of the one at the Placement center, three days earlier, except that it contained a high, narrow cot in place of a desk and chair. A damp-looking attendant in a white coat flipped a wall switch, twiddled a dial.

"Strip to your waist, place your clothing and shoes in the basket, remove all metal objects from your pockets, no watches or other jewelry must be worn," he

recited in a rapid monotone. "When you are ready, lie down on your back—" he slapped the cot— "hands at your sides, breathe deeply, do not touch any of the equipment. I will return in approximately five minutes. Do not leave the stall." He whisked the curtain aside and was gone.

Mart slipped a flat plastic tool kit from his pocket, opened it out, picked the largest screw-driver, and went to work on the metal panel cover set against the wall. He lifted it off and looked in at a maze of junction blocks, vari-colored wires, bright screw-heads, fuses, tiny condensers.

He pulled a scrap of paper from his pocket, compared it to the circuits before him. The large black lead, here . . . He put a finger on it. And the matching red one, leading up from the 30 MFD condenser . . .

With a twist, he freed the two connectors, reversed them, tightened them back in place. Working quickly, he snipped wires, fitted jumpers in place, added a massive resistor from his pocket. There; with luck, the check instruments would give the proper readings now—but the current designed to lightly scorch his synapses would flow harmlessly round and round within the apparatus. He clapped the cover back in place, screwed it down, and had just pulled off his

shirt when the attendant thrust his head inside the curtains.

"Let's go, let's get those clothes off and get on the cot," he said, and disappeared.

Maldon emptied his pockets, pulled off his shoes, stretched out on the cot. A minute or two ticked past. There was an odor of alcohol in the air. The curtain jumped aside. The round-faced attendant took his left arm, swiped a cold tuft of cotton across it, held a hypo-spray an inch from the skin, and depressed the plunger. Mart felt a momentary sting.

"You've been given a harmless soporific," the attendant said tonelessly. "Just relax, don't attempt to change the position of the headset or chest contacts after I have placed them in position, are you beginning to feel drowsy . . . ?"

Mart nodded. A tingling had begun in his fingertips; his head seemed to be inflating slowly. There was a touch of something cold across his wrists, then his ankles, pressure against his chest . . .

"Do not be alarmed, the restraint is for your own protection, relax and breathe deeply, it will hasten the effects of the soporific . . ." The voice echoed, fading and swelling. For a moment, the panicky thought came to Mart that perhaps he had made a mistake, that the modi-

fied apparatus would send a lethal charge through his brain . . . Then that thought was gone with all the others, lost in a swirling as of a soft green mist.

8

HE was sitting on the side of the cot, and the attendant was offering him a small plastic cup. He took it, tasted the sweet liquid, handed it back.

"You should drink this," the attendant said, "It's very good for you."

Mart ignored him. He was still alive; and the attendant appeared to have noticed nothing unusual. So far, so good. He glanced at his hand. *One, two, three, four, five . . .* He could still count. *My name is Mart Maldon, age twenty-eight, place of residence, Welfare Dorm 69, Wing Two, nineteenth floor, room 1906*

His memory seemed to be OK. *Twenty-seven times eighteen is . . . four hundred and eighty-six*

He could still do simple arithmetic.

"Come on, fellow, drink the nice cup, then put your clothes on."

He shook his head, reached for his shirt, then remembered to move slowly, uncertainly, like a moron ought to. He fumbled clumsily with his shirt . . .

The attendant muttered, put the cup down, snatched the shirt, helped Mart into it, buttoned it for him.

"Put your stuff in your pockets, come on, that's a good fellow . . ."

He allowed himself to be led along the corridor, smiling vaguely at people hurrying past. In the processing room, a starched woman back of a small desk stamped papers, took his hand and impressed his thumbprint on them, slid them across the desk.

"Sign your name here . . ." she pointed. Maldon stood gaping at the paper. There was absolutely no sign of comprehension.

"Write your name here!" She tapped the paper impatiently. Maldon reached up and wiped his nose with a forefinger, letting his mouth hang open.

The woman looked past him. "A Nine-oh-one," she snapped. "We can't be bothered. Take him back—"

Maldon grabbed the pen and wrote his name in large, scrawling letters. The woman snapped the form apart, thrust one sheet at him.

"Uh, I was thinking," he explained, folding the paper clumsily.

"Next!" the woman snapped, waving him on. He nodded submissively and shuffled slowly to the door.

THE Placement monitor looked at the form Maldon had given him. He looked up, smiling. "Well, so you finally wised up. Good boy. And today you got a nice score. We're going to be able to place you. You like bridges, hah?"

Maldon hesitated, then nodded.

"Sure you like bridges. Out in the open air. You're going to be an important man. When the cars come up, you lean out and see that they put the money in the box. You get to wear a uniform . . ." The small man rambled on, filling out forms. Maldon stood by, looking at nothing.

"Here you go. Now, you go where it says right here, see? Just get on the cross-town shuttle, right outside on this level, the one with the big number nine. You know what a nine is, OK?"

Maldon blinked, nodded. The clerk frowned. "Sometimes I think them guys overdo a good thing. But you'll get to feeling better in a few days; you'll sharpen up, like me. Now, you go on over there, and they'll give you your I.D. and your uniform and put you to work. OK?"

"Uh, thanks . . ." Maldon crossed the wide room, pushed through the turnstile, emerged into the late-afternoon sunlight

on the fourth-level walkaway. The glare panel by the shuttle entrance read NEXT—9. He thrust his papers into his pocket and ran for it.

MALDON left his Dormitory promptly at eight the next morning, dressed in his threadbare Student-issue suit, carrying the heavy duffel-bag of Port Authority uniforms which had been issued to him the day before. His new yellow tag was pinned prominently to his lapel.

He took a cargo car to street level, caught an uptown car, dropped off in the run-down neighborhood of second-hand stores centered around Fifth Avenue and Forty-fifth Street. He picked a shabby establishment barricaded behind racks of dowdy garments, stepped into a long, dim-lit room smelling of naphtha and mouldy wool. Behind a counter, a short man with a circlet of fuzz above his ears and a vest hanging open over a tight-belted paunch looked him over. Mart hoisted the bag up, opened it, dumped the clothing out onto the counter. The paunchy man followed the action with his eyes.

"What'll you give me for this stuff?" Mart said.

The man behind the counter prodded the dark blue tunic, put a finger under the light blue

trousers, rubbed the cloth. He leaned across the counter, glanced toward the door, squinted at Mart's badge. His eyes flicked to Mart's face, back to the clothing. He spread his hands.

"Five credits."

"For all of it? It's worth a hundred anyway."

The man glanced sharply at Maldon's face, back at his tag, frowning.

"Don't let the tag throw you," Maldon said. "It's stolen—just like the rest of the stuff."

"Hey." The paunchy man thrust his lips out. "What kinda talk is that? I run a respectable joint. What are you, some kinda cop?"

"I haven't got any time to waste," Maldon said. "There's nobody listening. Let's get down to business. You can strip off the braid and buttons and—"

"Ten credits, my top offer," the man said in a low voice. "I gotta stay alive, ain't I? Any bum can get outfitted free at the Welfare; who's buying my stuff?"

"I don't know. Make it twenty."

"Fifteen; it's robbery."

"Throw in a set of Maintenance coveralls, and it's a deal."

"I ain't got the real article, but close . . ."

Ten minutes later, Mart left the store wearing a grease-stained coverall with the cuffs

turned up, the yellow tag clipped to the breast pocket.

## 11

THE girl at the bleached-driftwood desk placed austere-ly at the exact center of the quarter-acre of fog-grey rug stared at Maldon distastefully.

"I know of no trouble with the equipment—" she started in a lofty tone.

"Look, sister, I'm in the plumbing line; you run your dictyper." Maldon swung a greasy tool box around by the leather strap as though he were about to lower it to the rug. "They tell me the Exec gym, Level 9, City Tower, that's where I go. Now, you want to tell me where the steam room is, or do I go back and file a beef with the Union . . .?"

"Next time come up the service shaft, Clyde!" she jabbed at a button; a panel whoosed aside across the room. "Men to the right, women to the left, co-ed straight ahead. Take your choice."

He went along the tiled corridor, passed steam-frosted doors. The passage turned right, angled left again. Mart pushed through a door, looked around at chromium and red plastic benches, horses, parallel bars, racks of graduated weights. A fat man in white shorts lay on the floor,

half-heartedly pedaling his feet in the air. Mart crossed the room, tried another door.

Warm, sun-colored light streamed through an obscure-glass ceiling. Tropical plants in tubs nodded wide leaves over a mat of grass-green carpet edging a turquoise-tiled pool with chrome railings. Two brown-skinned men in brief trunks and sun-glasses sprawled on inflated rafts. There was a door to the right lettered EXECUTIVE DRESSING ROOM—MEMBERS ONLY. Mart went to it, stepped inside.

Tall, ivory-colored lockers lined two walls, with a wide, padded bench between them. Beyond, bright shower heads winked in a darkened shower room. Maldon put the tool box on the bench, opened it, took out a twelve-inch prybar, looked around at the lockers. A monogrammed cigaret butt lay on the floor before one; he tried it first.

By levering at the top of the tall locker door, he was able to bulge it out sufficiently to see the long metal strip on the back of the door which secured it. He went back to the tool box, picked out a slim pair of pincers; with them he gripped the locking strip, levered up; the door opened with a sudden clang. The locker was empty.

He tried the next; it contained a handsome pale tan suit which would have fitted him nicely at

the age of twelve. He went to the next locker . . .

FOUR lockers later, a door popped open on a dark maroon suit of expensive-looking polyon, a pair of plain scarlet shoes, a crisp pink shirt. Mart checked quickly. There was a wallet stuffed with ten-credit notes, a club membership card, and a blue I. D. with a gold alligator clip. Mart left the money on the shelf, rolled the clothing and stuffed it into the tool box, made for the door. It swung open and the smaller of the two sun bathers pushed past him with a sharp glance. Mart walked quickly around the end of the pool, stepped into the corridor. At the far end of it, the girl from the desk stood talking emphatically to a surprised-looking man. Their eyes turned toward Mart. He pushed through the first door on the left into a room with a row of white-sheeted tables, standing lamps with wide reflectors, an array of belted and rolled equipment. A vast bulk of a man with hairy forearms and a bald head, wearing tight white leotard and white sneakers folded a newspaper and looked up from his bench, wobbling a toothpick in the corner of his mouth. There was a pink tag on this chest.

"Uh . . . showers?" Mart inquired. The fat man nodded to-

ward a door behind him. Mart stepped to it, found himself in a long room studded with shower-heads and control knobs. There was no other door out. He turned back, bumped into the fat man in the doorway.

"So somebody finally decided to do something about the leak," he said around the tooth-pick. "Three months since I phoned it in. You guys take your time, hah?"

"I've got to go back for my tools," Mart said, starting past him. The fat man blocked him without moving. "So what's in the box?"

"Ah, they're the wrong tools . . ." He tried to sidle past. The big man took the toothpick from his mouth, frowned at it.

"You got a pipe wrench, ain't you? You got crescents, a screwdriver. What else you need to fix a lousy leak?"

"Well, I need my sprog-depressor," Mart said, "and my des-trafficator rings, and possibly a marpilizer or two . . ."

"How come you ain't got—what you said—in there." The fat man eyed the tool box. "Ain't that standard equipment?"

"Yes, indeed—but I only have a right-hand one, and—"

"Let's have a look—" A fat hand reached for the tool-kit. Mart backed.

"—but I might be able to make it work," he finished. He glanced

around the room. "Which one was it?"

"That third needle-battery on the right. You can see the drip. I'm tryna read, it drives me nuts."

MART put the tool-box down. "If you don't mind, it makes me nervous to work in front of an audience . . ."

The fat man grunted and withdrew. Mart opened the box, took out a wrench, began loosening a wide hex-sided locking ring. Water began to dribble, then spurt. Mart went to the door, flung it open.

"Hey, you didn't tell me the water wasn't turned off . . ."

"Huh?"

"You'll have to turn off the master valve; hurry up, before the place is flooded!"

The fat man jumped up, headed for the door.

"Stand by it, wait five minutes, then turn it back on!" Mart called after him. The door banged. Mart hauled the tool box out into the massage room, quickly stripped off the grimy coverall. His eye fell on a rack of neatly-packaged underwear, socks, toothbrushes, combs. He helped himself to a set, removed the last of the Welfare issue clothing—

A shout sounded outside the door, running feet. The door burst open.

"Where's Charlie? Some rascal's stolen my clothing . . .!"

Mart grabbed up a towel, dropped it over his head and rubbed vigorously, humming loudly, his back to the newcomer.

"The workmen—there's his tool-box!"

Mart whirled, pulled the towel free, snatched the box from the hand of the invader, with a hearty shove sent him reeling into the locker room. He slammed the door, turned the key and dropped it down a drain. The shouts from inside were barely audible. He wrapped the towel around himself and dashed into the hall. There were people, some in white, others in towels or street clothes, all talking at once.

"Down there!" Mart shouted, pointing vaguely. "Don't let him get away!" He plunged through the press, along the hall. Doors opened and shut.

"Hey, what's he doing with a tool-box?" someone shouted. Mart whirled, dived through a door, found himself in a dense, hot fog. A woman with pink skin beaded with perspiration and a towel wrapped turban-fashion around her head stared at him.

"What are you doing in here? Co-ed is the next room along."

Mart gulped and dived past her, slammed through a plain door, found himself in a small room stacked with cartons. There was another door in the opposite

wall. He went through it, emerged in a dusty hall. Three doors down, he found an empty store-room.

Five minutes later he emerged, dressed in a handsome maroon suit. He strode briskly along to a door marked EXIT, came out into a carpeted foyer with a rank of open elevator doors. He stepped into one. The yellow-tagged attendant whooshed the door shut.

"Tag, sir?" Maldon showed the blue I. D. The operator nodded.

"Down, sir?"

"No," Mart said. "Up."

12

HE stepped out into the cool silence of Level Fifty.

"Which way to the class One Testing Rooms?" he asked briskly.

The operator pointed. The door-lined corridor seemed to stretch endlessly.

"Going to try for the Big One, eh, sir?" the operator said. "Boy, you couldn't hire me to take on them kind of jobs. Me, I wouldn't want the responsibility." The closing door cut off the view of his wagging head.

Maldon set off, trying to look purposeful. Somewhere on this level were the Central Personnel Files, according to Glamis. It shouldn't be too hard to find

them. After that . . . well, he could play it by ear.

A menu-board directory at a cross-corridor a hundred yards from his starting-point indicated PERSONNEL ANALYSIS to the right. Mart followed the passage, passed open doors through which he caught glimpses of soft colors, air-conditioner grills, potted plants, and immaculate young women with precise hair styles sitting before immense key boards or behind bare desks. Chaste lettering on doors read PROGRAMMING; REQUIREMENTS; DATA EXTRAPOLATION—PHASE III . . .

Ahead, Maldon heard a clattering, rising in volume as he approached a wide double door. He peered through glass, saw a long room crowded with massive metal cases ranked in rows, floor to ceiling. Men in tan dust smocks moved in the aisles, referring to papers in their hands, jotting notes, punching keys set in the consoles spaced at intervals on the giant cabinets. At a desk near the door, a man with a wide, sad mouth and a worried expression looked up, caught sight of Mart. It was no time to hesitate. He pushed through the door.

"Morning," he said genially over the busy sound of the data machines. "I'm looking for Central Personnel. I wonder if I'm in the right place?"

The sad man opened his

mouth, then closed it. He had a green tag attached to the collar of his open-necked shirt.

"You from Special Actions?" he said doubtfully.

"Aptical foddering," Maldon said pleasantly. "I'd never been over here in Personnel Analysis, so I said, what the heck, I'll just run over myself." He was holding a relaxed smile in place, modelled after the one Dean Wormwell had customarily worn when condescending to students.

"Well, sir, this is Data Processing; what you probably want is Files . . ."

Mart considered quickly. "Just what is the scope of the work you do here?"

The clerk got to his feet. "We maintain the Master Personnel Cards up-to-date," he started, then paused. "Uh, could I just see that I. D., sir?"

Maldon let the smile cool a degree or two, flashed the blue card; the clerk craned as Mart tucked the tag away.

"Now," Mart went on briskly, "Suppose you just start at the beginning and give me a run-down." He glanced at a wall-clock. "Make it a fast briefing. I'm a little pressed for time."

The clerk hitched at his belt, looked around. "Well, sir, let's start over here . . ."

TEN minutes later, they stood before a high, glass-fronted

housing inside which row on row of tape reels nestled on shiny rods; bright-colored plastic fittings of complex shape jammed the space over, under and behind each row.

"... it's all completely cybernetic-governed, of course," the clerk was saying. "We process an average of four hundred and nineteen thousand personnel actions per day, with an average relay-delay of not over four micro-seconds."

"What's the source of your input?" Mart inquired in the tone of one dutifully asking the routine questions.

"All the Directorates feed their data in to us—"

"Placement Testing?" Mart asked idly.

"Oh, sure, that's our biggest single data input."

"Including Class Five and Seven categories, for example?"

The clerk nodded. "Eight through Two. Your Tech categories are handled separately, over in Banks Y and Z. There . . ." He pointed to a pair of red-painted cabinets.

"I, see. That's where the new graduates from the Technical Institutions are listed, eh?"

"Right, sir. They're scheduled out from there to Testing alphabetically, and then ranked by score for Grading, Classification, and Placement."

Mart nodded and moved along

the aisle. There were two-inch high letters stencilled on the frames of the data cases. He stopped before a large letter B.

"Let's look at a typical record," Mart suggested. The clerk stepped to the console, pressed a button. A foot-square screen glowed. Print popped into focus on it: BAJUL, FELIX B. 654-8734-099-B1 /age 37. . . .

Below the heading was an intricate pattern of dots.

"May I?" Mart reached for the button, pushed it. There was a click and the name changed: BAKARSKI, HYMAN A.

He looked at the meaningless code under the name.

"I take it each dot has a significance?"

"In the first row, you have the physical profile; that's the first nine spaces. Then psych, that's the next twenty-one. Then . . ." He lectured on. Mart nodded.

". . . educational profile, right here . . ."

"Now," Mart cut in. "Suppose there were an error—say in the median scores attained by an individual. How would you correct that?"

THE clerk frowned, pulling down the corners of his mouth into well-worn grooves.

"I don't mean on your part, of course," Mart said hastily. "But I imagine that the data processing equipment occasionally drops

a decimal, eh?" He smiled understandingly.

"Well, we do get maybe one or two a year—but there's no harm done. On the next run-through, the card's automatically kicked out."

"So you don't . . . ah . . . make corrections?"

"Well, only when a Change Entry comes through."

The clerk twirled knobs; the card moved aside, up; a single dot swelled on the screen, resolved into a pattern of dots.

"Say it was on this item; I'd just wipe that code, and overprint the change. Only takes a second, and—"

"Suppose, for example, you wanted this record corrected to show graduation from a Tech Institute?"

"Well, that would be this symbol here; eighth row, fourth entry. The code for technical specialty would be in the 900 series. You punch it in here." He indicated rows of colored buttons. "Then the file's automatically transferred to the V bank."

"Well, this has been a fascinating tour," Mart said. "I'll make it a point to enter an appropriate commendation in the files."

The sad-faced man smiled wanly. "Well, I try to do my job . . ."

"Now, if you don't mind, I'll just stroll around and watch for

a few minutes before I rush along to my conference."

"Well, nobody's supposed to be back here in the stacks except—"

"That's quite all right. I'd prefer to look it over alone." He turned his back on the clerk and strolled off. A glance back at the end of the stack showed the clerk settling into his chair, shaking his head.

MART moved quickly past the ends of the stacks, turned in at the third row, followed the letters through O, N, stopped before M. He punched a button, read the name that flashed on the screen: MAJONOVITCH.

He tapped at the key; names flashed briefly: MAKISS . . . MALACHI . . . MALDON, SALLY . . . MALDON, MART—

He looked up. A technician was standing at the end of the stack, looking at him. He nodded.

"Quite an apparatus you have here . . ."

The technician said nothing. He wore a pink tag and his mouth was open half an inch. Mart looked away, up at the ceiling, down at the floor, back at the technician. He was still standing, looking. Abruptly his mouth closed with a decisive snap; he started to turn toward the clerk's desk—

Mart reached for the control knobs, quickly dialled for the

eighth row, entry four; the single dot shifted into position, enlarged. The technician, distracted by the sudden move, turned, came hurrying along the aisle.

"Hey, nobody's supposed to mess with the—"

"Now, my man," Mart said in a firm tone. "Answer each question in as few words as possible. You will be graded on promptness and accuracy of response. What is the number of digits in the Technical Specialty series—the 900 group?"

Taken aback, the technician raised his eyebrows, said "Three—but—"

"And what is the specific code for Microtronics Engineer—cum Laude?"

There was a sudden racket from the door. Voices were raised in hurried inquiry. The clerk's voice replied. The technician stood undecided, scratching his head. Mart jabbed at the colored buttons: 901 . . . 922 . . . 936 dozen three-digit Specialties into his record at random.

From the corner of his eye he saw a light blank on one of the red-painted panels; his record was being automatically transferred to the technically Qualified files. He poked the button which whirled his card from the screen and turned, stepped off toward the far end of the room. The technician came after him.

"Hey there, what card was that

you were messing with . . . ?"

"No harm done," Mart reassured him. "Just correcting an error. You'll have to excuse me now; I've just remembered a pressing engagement . . ."

"I better check; what card was it?"

"Oh—just one picked at random."

"But . . . we got a hundred million cards in here . . ."

"Correct!" Malden said. "So far you're batting a thousand. Now, we have time for just one more question: is there another door out of here?"

"Mister, you better wait a minute till I see the super—"

Mart spotted two unmarked doors, side by side. "Don't bother; what would you tell him? That there was, just possibly, a teentsy weentsy flaw in one of your hundred million cards? I'm sure that would upset him." He pulled the nearest door open. The technician's mouth worked frantically.

"Hey, that's"—he started.

"Don't call us—we'll call you!" Mart stepped past the door; it swung to behind him. Just before it closed, he saw that he was standing in a four-foot by six foot closet. He whirled, grabbed for the door; there was no knob on the inside. It shut with a decisive click!

He was alone in pitch darkness.

MALDON felt hastily over the surfaces of the walls, found them bare and featureless. He jumped, failed to touch the ceiling. Outside he heard the technician's voice, shouting. At any moment he would open the door and that would be that . . .

Mart went to his knees, explored the floor. It was smooth. Then his elbow cracked against metal—

He reached, found a grill just above floor level, two feet wide and a foot high. A steady flow of cool air came from it. There were screw-heads at each corner. Outside, the shouts continued. There were answering shouts.

Mart felt over his pockets, brought out a coin, removed the screws. The grill fell forward into his hands. He laid it aside, started in head-first, encountered a sharp turn just beyond the wall. He wriggled over on his side, pushed hard, negotiated the turn by pulling with his hands pressed against the sides of the metal duct. There was light ahead, cross-hatched by a grid. He reached it, peered into a noisy room where great panels loomed, their faces a solid maze of dials and indicator lights. He tried the grill. It seemed solid. The duct made a right-angle turn here. Maldon worked his way around the bend, found that the duct widened six inches. When his feet were in position, he

swung a kick at the grill. The limited space made it awkward; he kicked again and again; the grill gave, one more kick and it clattered into the room beyond. Mart struggled out through the opening.

The room was brightly lit, deserted. There were large printed notices here and there on the wall warning of danger. Mart turned, re-entered the duct, made his way back to the closet. The voices were still audible outside the door. He reached through the opening, found the grill, propped it in position as the door flew open. He froze, waiting. There was a moment of silence.

"But," the technician's voice said, "I tell you the guy walked into the utility closet here like he was boarding a rocket for Paris! I didn't let the door out of my sight, that's why I was standing back at the back and yelling, like you was chewing me out for . . ."

"You must have made an error; it must have been the other door there . . ."

The door closed. Mart let out a breath. Now perhaps he'd have a few minutes' respite in which to figure a route off Level Fifty.

13

HE prowled the lanes between the vast cybernetic machines, turned a corner, almost collided with a young woman

with red-blond hair, dark eyes and a pouting red mouth which opened in a surprised O.

"You shouldn't be in here," she said, motioning over her shoulder with a pencil. "All examinees must remain in the examination room until the entire battery of tests have been completed."

"I . . . ah . . ."

"I know," the girl said, less severely. "Four hours at a stretch. It's awful. But you'd better go back in now before somebody sees you."

He nodded, smiled, and moved toward the door she had indicated. He looked back. She was studying the instrument dials, not watching him. He went past the door and tried the next. It opened and he stepped into a small, tidy office. A large-eyed woman with tightly dressed brown hair looked up from a desk adorned by a single rosebud in a slim vase and a sign reading PLACEMENT OFFICER. Her eyes went to a wall clock.

"You're too late for today's testing, I'm afraid," she said. "You'll have to return on Wednesday; that's afternoon testing. Mondays we test in the morning." She smiled sympathetically. "Quite a few make that mistake."

"Oh," Mart said. "Ah . . . Couldn't I start late?"

The woman was shaking her

head. "Oh, it wouldn't be possible. The first results are already coming in . . ." She nodded toward a miniature version of the giant machines in the next room. A humming and clicking sounded briefly from it. She tapped a key on her desk. There was a sharp buzz from the small machine. He gazed at the apparatus. Again it clicked and hummed. Again she tapped, eliciting another buzz.

Mart stood, considering. His only problem now was to leave the building without attracting attention. His record had been altered to show his completion of a Technical Specialty; twelve of them, in fact. It might have been better if he had settled for one. Someone might notice—

"I see you're admiring the Profiler," the woman said. "It's a very compact model, isn't it? Are you a Cyberneticist, by any chance?"

Maldon started. "No . . ."

"What name is that? I'll check your file over to see that everything's in order for Wednesday's testing."

Mart took a deep breath. This was no time to panic . . . "Maldon," he said. "Mart Maldon."

THE woman swung an elaborate telephone-dial-like instrument out from a recess, dialed a long code, then sat back. Ten seconds passed. With a click,

a small panel on the desk-top glowed. The woman leaned forward, reading. She looked up.

"Why, Mr. Maldon! You have a remarkable record! I don't believe I've ever encountered a testee with such a wide—and varied—background!"

"Oh," Mart said, with a weak smile. "It was nothing . . ."

"Eidetics, Cellular Psychology, Autonomics . . ."

"I hate narrow specialization," Mart said.

". . . Cybernetics Engineering—why, Mr. Maldon, you were teasing me!"

"Well . . ." Mart edged toward the door.

"My, we'll certainly be looking forward to seeing your test results, Mr. Maldon! And Oh! Do let me show you the new Profiler you were admiring." She hopped up, came round the desk. "It's such a time saver—and of course, saves a vast number of operations within the master banks. Now, when the individual testee depresses his COMPLETED key, his test pattern in binary form is transferred directly to this unit for recognition. It's capable of making over a thousand yes-no comparisons per second, profiling the results in decimal terms and recoding them into the master record, without the necessity for activating a single major sequence within the master—and, of course, every ac-

tivation costs the taxpayer seventy-nine credits!"

"Very impressive," Mart said. If he could interrupt the flow of information long enough to ask a few innocent-sounding directions . . .

A discreet buzzer sounded. The woman depressed a key on the desk communicator.

"Miss Frinkles, could you step in a moment? There's a report of a madman loose in the building . . ."

"Good Heavens!" She looked at Mart as she slipped through the door. "Please, do excuse me a moment . . ."

MART waited half a minute, started to follow; a thought struck him. He looked at the Profiler. All test results were processed through this little device; what if . . .

A quick inspection indicated that the apparatus was a close relative of the desk-top units used at Applied Tech in the ill-fated Analogy Theory class. The input, in the form of a binary series established by the testee's answers to his quiz, was compared with the master pattern for the specialty indicated by the first three digits of the signal. The results were translated into a profile, ready for transmittal to the Master Files.

This was almost too simple . . . Mart pressed a lever at the back

of the housing, lifted it off. Miss Frinkles had been right about this being a new model; most of the circuitry was miniaturized and built up into replacable sub-assemblies. What he needed was a set of tools . . .

He tried Miss Frinkles' desk, turned up a nail file and two bobby pins. It wouldn't be necessary to fake an input; all that was needed was to key the coder section to show the final result. He crouched, peered in the side of the unit. There, to the left was the tiny bank of contacts which would open or close to indicate the score in a nine-digit profile. There were nine rows of nine contacts, squeezed into an area of one half-inch square. It was going to be a ticklish operation . . .

Mart straightened a hair-pin, reached in, delicately touched the row of minute relays; the top row of contacts snapped closed, and a red light went on at the side of the machine. Mart tossed the wire aside, and quickly referred to his record, still in focus on Miss Frinkles' desk-top viewer, then tickled tumblers to show his five letter, four digit personal identity code. Then he pressed a cancel key, to blank the desk-screen, and dropped the cover back in place on the Profiler. He was sitting in a low chair, leafing through a late issue of *Popular Statistics* when Miss Frinkles returned.

"It seems a maintenance man ran berserk down on Nine Level," she said breathlessly. "He killed three people, then set fire to—"

"Well, I must be running along" Mart said, rising. "A very nice little machine you have there. Tell me, are there any manual controls?"

"Oh, yes, didn't you notice them? Each test result must be validated by me before it's released to the Master Files. Suppose someone cheated, or finished late; it wouldn't do to let a disqualified score past."

"Oh, no indeed. And to transfer the data to the Master File, you just push this?" Mart said, leaning across and depressing the key he had seen Miss Frinkles use earlier. There was a sharp buzz from the Profiler. The red light went out.

"Oh, you mustn't—" Miss Frinkles exclaimed. "Not that it would matter in this case, of course," she added apologetically, but—"

THE door opened and the red-head stepped into the room. "Oh," she said, looking at Mart. "There you are. I looked for you in the Testing room—"

Miss Frinkles looked up with a surprised expression. "But I was under the impression—" She smiled. "Oh, Mr. Maldon, you are a tease! You'd already com-

pleted your testing, and you let me think you came in late . . .!"

Mart smiled modestly.

"Oh, Barbara, we must look at his score. He has a fantastic academic record . . ." She looked at the screen. "I don't remember cancelling . . . She dialled again. ". . . at least ten Specialized degrees, and *magna cum laude* in every one . . ."

The screen glowed. Miss Frinkles adjusted a knob, scanned past the first frame to a second. She stared.

"Mr. Maldon! I knew you'd do well, but a *perfect* score!"

The hall door banged wide. "Miss Frinkles—" a tall man stared at Mart, looked him up and down. He backed a step. "Who're you? Where did you get that suit—"

"MISTER Cludd!" Miss Frinkles said in an icy tone. "Kindly refrain from bursting into my office unannounced—and kindly show a trifle more civility to my guest, who happens to be a very remarkable young man who has just completed one of the finest test profiles it has been my pleasure to see during my service with Placement!"

"Eh? Are you sure? I mean—that suit . . . and the shoes . . ."

"I like a conservative outfit," Mart said desperately.

"You mean he's been here all morning . . .?" Mr. Cludd

looked suddenly uncomfortable.

"Of course!"

"He was in my exam group, Mr. Cludd," the red-haired girl put in. "I'll vouch for that. Why?"

"Well . . . it just happens the maniac they're looking for is dressed in a similar suit, and . . . well, I guess I lost my head. I was just coming in to tell you he'd been seen on this floor. He made a getaway through a service entrance leading to the helipad on the roof, and . . ." he ran down.

"Thank you, Mr. Cludd," Miss Frinkles said icily. Cludd mumbled and withdrew. Miss Frinkles turned to Mart.

"I'm so thrilled, Mr. Maldon . . ."

"Golly, yes," Barbara said.

"It isn't every day I have the opportunity to Place an applicant of your qualifications. Naturally, you'll have the widest possible choice. I'll give you the current prospectus, and next week—"

"Couldn't you Place me right now, Miss Frinkles?"

"You mean—today?"

"Immediately." Mart looked at the red-head. "I like it here. What openings have you got in your department?"

Miss Frinkles gasped, flushed, smiled, then turned and played with the buttons on her console, watching the small screen. "Wonderful," she breathed. "The

opening is still unfilled. I was afraid one of the other units might have filled it in the past hour." She poked at more keys. A white card in a narrow platinum holder with a jewelled alligator clip popped from a slot. She rose and handed it to Mart reverently.

"Your new I. D. sir. And I know you're going to make a wonderful chief!"

14

MART sat behind the three-yard-long desk of polished rosewood, surveying the tennis-court-sized expanse of ankle-deep carpet which stretched across to a wide door of deep-polished mahogany, then swivelled to gaze out through wide windows of insulated, polarized, tinted glass at the towers of Granyauck, looming up in a deep blue sky. He turned back, opened the silver box that rested between a jade pen-holder and an ebony paper-weight on the otherwise unadorned desk, lifted out a Chanel dope-stick, sniffed it appreciatively. He adjusted his feet comfortably on the desk top, pressed a tiny silver button set in the arm of the chair. A moment later the door opened with the faintest of sounds.

"Barbara—" Mart began.

"There you are," a deep voice said.

Mart's feet came off the desk with a crash. The large man approaching him across the rug had a familiar look about him

...

"That was a dirty trick, locking me in the shower. We hadn't figured on that one. Slowed us up something awful." He swung a chair around and sat down.

"But," Mart said. "But . . . but . . ."

"Three days, nine hours and fourteen minutes," the newcomer said, eyeing a finger watch. "I must say you made the most of it. Never figured on you bollixing the examination records, too; most of 'em stop with the faked Academic Record, and figure to take their chances on the exam."

"Most of 'em?" Mart repeated weakly.

"Sure. You didn't think you were the only one selected to go before the Special Placement Board, did you?"

"Selected? Special . . ." Mart's voice trailed off.

"Well, surely you're beginning to understand now, Maldon," the man from whom Mart had stolen the suit said. "We picked you as a potential Top Executive over three years ago. We've followed your record closely ever since. You were on every one of the Board Members' nomination lists —"

"But—but I was quota'd out —"

## COMING NEXT MONTH



Two Roberts—Young and Rohrer—headline the August issue of **AMAZING**. Bob Young's *The Honey-Earthers* tells the story of an unorthodox trip made by an unorthodox couple to a plush Moon palace for brides-and-grooms from all over the galaxy. And Bob Rohrer's *Furnace of the Blue Flame* dramatizes the conflict between two roads back to civilization.

The August **AMAZING** will have another Sam Moskowitz SF Profile, this one of **Mort Weisinger**, one of the genre's first fans . . . first writers . . . first editors . . . and most fantabulous personality. The August issue of **AMAZING** will be at your newstand July 11. Reserve a copy now.

"Oh, we could have let you graduate, go through testing, pick up a green tag and a spot on a promotion list, plug away for twenty years, make Exec rank—but we can't waste the time. We need talent, Mart. And we need it now!"

Mart took a deep breath and slammed the desk. "Why in the name of ten thousand devils didn't you just TELL me!"

The visitor shook his head. "Nope; we need good men, Mart—need 'em bad. We need to find the superior individuals; we can't afford to waste time bolstering up the folklore that the will of the people constitutes wisdom. This is a city of a hundred million people—and it's growing at a rate that will double that in a decade. We have problems, Mart. Vast, urgent problems. We need men that can solve 'em. We can test you in academic knowledge, cook up psychological profiles—but we have to KNOW. We have to find out how you react in a real-life situation; what you do to help yourself when you're dumped on the walkaway, broke and hopeless. If you go in and have your brain burned, scratch one. If you meekly register to wait out a Class Two test opening—well, good luck to you. If you walk in and take what you want . . ." he looked around the office . . . then welcome to the Club."

**THE END**

# OPERATION SHIRTSLEEVE

No. 2 in a series on Planetary Engineering

By BEN BOVA

**B**UILDING a permanent manned base on the Moon, as the first article in this series indicated, will be primarily an engineering problem. Based on what is known about the Moon today, there seems to be no insurmountable obstacle to erecting a base that can eventually become self-sufficient. The planets are another matter. The much-greater distances, the varying environments, and—above all—the dearth of knowledge about them, create a different order-of-magnitude of difficulty.

As you recall, for Moonbase we were content with an underground city. We did not try to change the Moon in any significant way; we simply wanted to set up a self-sufficient terrestrial environment there. In a sense, we did not attempt to conquer the Moon. We learned to live in its environment, and to use it to our advantage.

For the planets, though, we

might consider a more ambitious goal. Would it be possible to alter the conditions on the surface of a planet to something resembling the conditions on Earth? We could, of course, use the techniques developed in building Moonbase to construct similar underground settlements on the planets. But can we go farther, and create an environment where men can walk, breathe, and dress the way they do on Earth? To borrow a bio-engineering term, can we make a "shirtsleeve" environment on an alien planet?

For now, we'll confine our discussion to the two nearest planets—Venus and Mars. And at the outset we must make a basic assumption: we shall assume that man will unlock the secrets of controlled thermonuclear power, and that nuclear fusion reactors will be available both as groundbased power plants, and as rocket propulsion engines. Without fusion power, attempts

to put large numbers of men on the planets, and support them, would be foolhardy.

#### The Puzzle of Venus

VENUS averages some 25 million miles from Earth at its closest approaches. It is the nearest planet. And the most frustrating. The surface conditions of the planet are a riddle; the atmosphere is a mystery; all the information we want is beneath the virtually impenetrable cloud deck that surrounds Venus. Infrared and microwave transmissions can cut through the clouds and give some information on the conditions in the atmosphere and on the surface. But the more we learn about Venus, the more inhospitable it sounds.

Surface temperatures reach at least 600°F, it seems; possibly they go 200 degrees higher. The atmosphere above the cloud deck has revealed no trace of oxygen, and very little water vapor. Spectroscopic studies have shown a high percentage of carbon dioxide—25% or even more. In the absence of further evidence, it is assumed that nitrogen comprises the bulk of the atmosphere. Nitrogen is an abundant element throughout the solar system, and would be invisible to Earth-bound spectroscopes. The clouds themselves may be some form of hydrocarbon—an oily vapor.

Nothing is known about the surface conditions on Venus, aside from the temperature and a few radar probes that have shown very smooth profiles. If the radar was actually "seeing" the surface, then Venus must be unusually flat. Either the surface is covered with liquid—and at 600°F it could hardly be water or anything else attractive to Earthlings—or the ground has been scoured bare and level by erosional forces undreamed of on Earth. Estimates of the atmospheric pressures at the surface tend to lend credence to the erosion-working-overtime idea. Surface pressure may be 100 times more than terrestrial sea-level atmospheric pressure. It is not difficult to envision enormously powerful winds raising perpetual duststorms across an utterly arid land.

That is the picture of Venus currently held by most astronomers. It may be completely inaccurate. Opinions about Venus have changed tremendously in the past, and they could change even more when better evidence is brought in. There are experts in the field who hold widely diverging views about Venus. But the majority view is that the surface of Venus is a bone-dry 600-800°F wind-racked dustbowl with atmospheric pressures at least 50 times Earth's.

If these are the true surface

conditions on Venus, man may very well pass over the planet without attempting to tame it. There would have to be compelling reasons—with solid economic logic behind them—to make us spend the effort necessary to “shirtsleeve” Venus.

Can it be done at all? Can man even survive on Venus?

#### The First Steps

**F**IRST of all, we can envision subsurface bases being built. Despite the ferocious conditions aboveground, it would probably not be impossible to design machinery and protective equipment that could allow men to work in a red-hot sandstorm. The cost would be astronomical, but it might be done. It could even be possible, in future decades, to have the work done on the surface by completely automated equipment. (Robots, if you will, but not necessarily built in humanoid shape.) Men could monitor the work via television from the relative comfort of orbiting stations.

A further step might be to erect domes on the surface. The engineering problems involved would be similar to but more severe than those of building large domes deep underwater. The outer pressure on the domes would have to be balanced either by architectural bracing or by an equalizing internal pressure. Nei-

ther alternative sounds enticing. Surface domes would probably offer no great advantage over underground quarters; especially since they would be subject to the constant erosive forces of wind and dust. One thing Venus would not lack, of course, would be power. Wind-driven turbines would be fashionable there even for an underground base, and even though the blades would be replaced often because of erosion and fatigue. Heat energy might be tapped directly from the atmosphere itself.

#### Planetary Engineering through Biology

**T**HE possibility of transforming this utterly hostile environment into Earth-like conditions lies in the regime of endeavor called bioengineering. No, we are not proposing re-engineering man to fit the planet. We are speaking of using biological forces to alter Venus to fit man. Dr. Carl Sagan of the Smithsonian Institution Astrophysical Observatory, first suggested this approach in 1961. His reasoning goes this way:

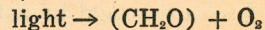
The surface temperature on Venus is higher than predicted by calculations of the amount of solar energy reaching the ground. On an airless body like the Moon, solar energy is absorbed by the ground, and when the soil has been heated to a certain temperature, most of the

original incoming energy is re-radiated back into space, in the form of infrared rays.

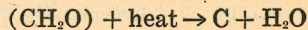
On Venus, the infrared coming out of the ground cannot go directly into space. The atmosphere is in the way, and absorbs at least some of the infrared. In essence, the atmosphere absorbs and holds heat, and transfers some of this heat back to the ground, thereby keeping the surface at its high temperature. This heat-storage ability of the atmosphere is called the "greenhouse effect." Earth's atmosphere has a greenhouse effect, thanks to the water vapor and trace of carbon dioxide in our air. One of the troubles with Mars is that the greenhouse effect is practically nonexistent there.

To transform Venus, then, we need something to destroy much of this greenhouse effect and allow a good bit of the heat now trapped in the atmosphere to escape to space. Since the carbon dioxide is no doubt responsible for most of the greenhouse effect, we should look to a technological method that will reduce the CO<sub>2</sub> content of the atmosphere. At the same time, we should like to keep whatever water vapor is available—since water is a precious resource. And also at the same time we should like to produce some fairly substantial amount of molecular oxygen to breathe.

Terrestrial plant life is extremely good at using up carbon dioxide and producing oxygen. But since Venus' surface is so hot, and all the planet's available water is in the atmosphere, an airborne plant species is called for. Sagan suggests an alga with the ability to resist high temperatures: the microscopic, blue-green airborne *Nostocaceae* family. The clouds of Venus could be seeded with algae of this type, at an altitude where the proper temperature and enough water vapor can be found. They would begin to photosynthesize the carbon dioxide and water, producing oxygen:

$$\text{CO}_2 + \text{H}_2\text{O} +$$


Naturally, the algae would tend to drift to lower altitudes, where the increasing temperatures would soon decompose them:



The net effect is to remove carbon dioxide from the atmosphere and replace it with oxygen. The amount of water vapor remains roughly in balance, and the pure carbon produced would probably settle out of the atmosphere and be deposited on the ground. If this sequence of events sounds too fortuitous to be true, remember that the oxygen you are now breathing probably originated in a photosynthetic plant. A major advantage of using biological

systems to transform Venus is that living organisms increase their numbers geometrically, if they find suitable conditions. It might not be necessary to carry vast tonnages of algae to Venus; the atmosphere could be "seeded" with micro-organisms and, if all goes well, biology will do the rest.

As the carbon dioxide vanishes, the surface temperature will start to drop. Eventually new forms of microscopic plants can be spread on the surface itself, to continue and even accelerate the job of "shirtsleeving" Venus. In time, rain will begin to fall. The atmosphere will be a nitrogen-oxygen mixture. Earth's so-called twin planet will more nearly resemble her sister world . . . in theory. There are still myriad questions to be answered. For instance: even microscopic algae need a certain amount of metallic elements. Will there be any in the atmosphere of Venus, from meteoric infall perhaps? What side effects would the algae produce? How would the atmospheric pressure change, if at all? What if there are already native life forms in the clouds of Venus?

Above all, how long would it take to transform the planet? Planet-wide changes take time, and biological systems generally are in no hurry. While it is impossible to say how quickly the

reactions would go, it appears that it would require millenia, not merely centuries, to complete the transformation of Venus. Such an operation would take far more planning and patience than man has ever shown. If conditions on Venus are as atrocious as most astronomers now believe, we may very well seed the planet with algae and then wait for nature to take its course—with an occasional inspection from time to time, to make certain everything is going as planned. There would be very little else we *could* do with the planet, as far as planetary engineering is concerned.

In the end, our reward would be a literally new world. And in the meantime, planetary engineers would have plenty of other work at hand. For instance, Mars.

#### The Promise of Mars

**I**N many ways Mars is the opposite of Venus. The Red Planet averages some 50 million miles farther from the Sun than Earth does, has practically no atmosphere at all, and is quite cold. But while Venus seems to become more hostile as we learn about the planet, Mars appears to offer more promise as we study it more closely. Of all the planets in the solar system, Mars would seem to be the one most amenable to being transformed

into a terrestrial shirtsleeve environment. The physical conditions on the planet are fairly well understood. But new information has been obtained in the past year that considerably alters previous thinking about Mars.

First, the Martian atmosphere has been found to be even thinner than previously deduced. The surface pressure is about one one-hundredth that of Earth—roughly equivalent to the pressure at 100,000 feet altitude on Earth. It is this rarity of the Martian atmosphere, we shall see, that is largely responsible for the planet's low surface temperature. The atmosphere is so tenuous that it will be practically useless for aerodynamic braking of incoming spacecraft. They will have to land on retro-rockets, in the same manner envisioned for the Moon. Aircraft of all types will be highly improbable on Mars; there is simply not enough atmosphere to support even a good-sized balloon.

However, the past year's studies have also disclosed some good news—the positive identification of water vapor in the Martian atmosphere. It is estimated that Mars holds about a thousandth the water vapor in its atmosphere that Earth does. That does not sound like much, true. But positive identification of *any* water on Mars is a break-

through. Until such an identification, there were still arguments that Mars was completely dry.

There is also a high percentage of carbon dioxide in the Martian atmosphere; possibly as much as 30%, as compared to Earth's 0.03%. But 30% of practically nothing is still practically nothing, and the CO<sub>2</sub> produces a negligible greenhouse effect. The remainder of the atmosphere is assumed to be nitrogen, with perhaps a trace of argon. As with Venus, this conclusion comes from theory, not observation.

#### The Martian Climate

THE atmosphere is almost completely transparent to visible, infrared and ultraviolet light. This has both good and bad features. Incoming solar energy reaches the surface of Mars with little absorption in the atmosphere. The surface actually receives nearly as much solar heat as the surface of Earth does, despite Mars' greater distance from the Sun, because the Martian atmosphere does not block incoming solar energy as much as the Earth's does. On the other hand, ultraviolet radiation from the Sun also reaches the surface practically unimpeded. This could be deadly to unprotected men.

The wispy Martian air allows

virtually all the infrared radiation emitted from the ground to escape back into space. The atmosphere traps and stores practically no heat at all. So despite the amount of warmth it receives from the Sun, Mars is an extremely cold planet. In fact, it has been estimated that even when the temperature of the ground reaches fairly comfortable heights—say 70°F—you could still get a frostbitten nose, even though the soles of your feet would be warm! The climate of Mars averages some 100°F below the average temperatures on Earth. Summer-time temperatures may climb to a peak of 80°F around noon on the equator, but the same spot will be well below freezing by sunset, and reach a low of perhaps - 20°F during the night. Most of Mars is below freezing for most of the year. Lowest temperatures observed have been around - 140°F.

While the climate is severe, it is not nearly as inhospitable as the conditions postulated for Venus. Perhaps the greatest problem is not the low temperature itself as much as the tremendous *fluctuation* in temperature each day—the diurnal oscillation. On Earth, temperature differences between night and day are moderated by the presence of a tremendous “heat sink”—the oceans—that stores

heat by day and gradually releases it at night. On Mars, no liquid water has ever been directly observed. Mars has no heat sink. Therefore, nights are inhumanly cold, no matter what the daytime temperature. (Mars does have polar caps, though: probably snow or frost, less than a few inches thick.)

There are seasonal color changes in the dark areas of Mars that point strongly to the presence of a type of plant-like life. Without going into details over the evidence and its interpretation, we can assume that some form of life does exist on Mars—but probably not intelligent life.

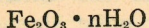
To the planetary engineer, the really interesting features of the Martian landscape are the so-called desert areas. These are apparently composed of an iron oxide called *limonite*. At least, they resemble no material known on Earth so closely as they resemble limonite. If we wish to change Mars to a terrestrial shirtsleeve world, then limonite will be our principle resource.

#### Transforming Mars

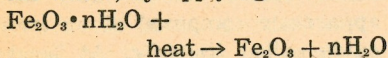
**S**UMMARIZING, we can say that Mars presents the following problems to human habitation: (1) low average temperature, with wide daily fluctuations; (2) lack of oxygen in the atmosphere; (3) lack of wa-

ter; (4) high ultraviolet radiation intensity at the surface; (5) low atmospheric pressure. There are plenty of other problems, but sufficient for this article are the evils listed.

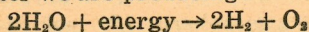
If the Martian deserts are indeed composed of limonite, we may have a means for subduing these problems. For limonite contains both oxygen and water. Its chemical formula is written:



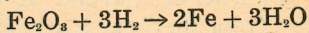
The dot is chemist's shorthand to show that the water is only loosely linked with the iron oxide molecule, and therefore comparatively easy to detach. The "n" simply means that there could be more than one water molecule linked to the iron oxide molecule. Fine. The more, the better. The first step is to free the water, by applying heat:



Next we dissociate the water into hydrogen and oxygen. This could be done by using incoming solar ultraviolet. The freed oxygen is poured directly into the atmosphere. Eventually, enough oxygen would accumulate in the atmosphere to block the ultraviolet rays from Mars' surface. One of the problems of Martian living would be solved. But we would have to begin using electrical energy to dissociate the water we are producing:



While the oxygen is being pumped into the atmosphere, the hydrogen can be applied to the remaining iron oxide, reducing it to pure iron, and forming water:



The only requirement is that we need three times as much hydrogen, molecule for molecule, as iron ore. It may become necessary to find hydrogen from other sources. Perhaps the Martian planetary engineers will have to "mine" the planetoid belt or the moons of Jupiter for hydrogen-rich compounds, such as ammonia, methane, or water. Water is obviously the most desirable, since it will provide both hydrogen for reducing the iron ore, and additional oxygen for the atmosphere. Carbon, obtained from methane ( $\text{CH}_4$ ), could be combined to produce carbon dioxide, and an enhanced greenhouse effect. Nitrogen from ammonia ( $\text{NH}_3$ ) could be added to the atmosphere as a relatively inert diluent to build up the atmospheric pressure to humanly-tolerable levels.

Starting with limonite then, we can produce water, oxygen, and a protective ozone belt that will shield Mars' surface from dangerous ultraviolet radiation. The energy required should be available from thermonuclear reactors by the time man is ready to engineer Mars.

But what about the climate, and the daily temperature fluctuations? If enough water can be produced and poured back into the ground, it might begin to act as a heat sink and moderate the diurnal temperature changes somewhat. And if enough carbon dioxide and water vapor can be poured into the atmosphere a significant greenhouse effect might be obtained. Here, though, we enter a vicious circle; for more water vapor in the air could mean more solar energy absorbed or reflected off clouds before reaching the ground, which would mean a net *lowering* of ground temperatures. Much careful calculation is needed here.

At any rate, it would not be necessary—or even desirable—to raise Mars' temperatures to those of Earth's. Experiments have shown terrestrial microorganisms can survive under present Martian conditions. And some researchers have even grown lettuce, beans, rye, cabbage and other vegetables under conditions approximating those on Mars today. Temperatures and pressures were Martian; a slight amount of oxygen and a normal amount of water were added. The plants grew and survived. If conditions could be made slightly less Martian and more terrestrial, perhaps the plants could flourish. Men can

live and work unprotected at altitudes of about 10,000 feet after a period of acclimatization. So the Martian environment need not be transformed completely to terrestrial sea-level values.

#### The Cost of Shirtsleeves

**E**VEN so, the cost of transforming Mars would seem to be staggering. The job would entail taking some  $10^{14}$  tons of oxygen out of the soil and putting it into the atmosphere. That is roughly the amount needed to create a partial pressure of oxygen that human beings can breathe. There would also be similar tonnages of other gases to be pumped into the atmosphere to bring the total pressure up to reasonable terrestrial standards. There are no figures available on the costs of mining limonite and transporting it under Martian conditions, of course. Highly automated equipment and very-high-speed monorail trains—both running on nuclear power—would be called for.

However, cost figures *do* exist for the hydrogen reduction of iron ore. Processing plants of this type have been built on Earth. A plant that produces about 1000 tons of oxygen per day costs \$15 million to build. Operating costs are additional. Applying that figure to the production of  $10^{14}$  tons of oxygen gives a brutal-looking answer:

if we operated on Mars for 100 years, it would cost  $\$15 \times 10^{13}$  per year to do the job. That is  $\$150$  trillion per year for a century. When you consider how many Congressmen are getting heart flutter over spending  $\$5$  billion per year on Project APOLLO, the prospects of planetary engineering on Mars seem dim indeed.

But there are other factors that can brighten up the picture a bit.

First of all, we are trying to attach today's cost figures to tomorrow's technology. There is no allowance made for improvements in efficiency, cost reduction, new processes or ideas, or the effect of substituting present power sources with nuclear fusion power plants. Any of these factors—or all of them—could contribute to a significant lowering of the cost figures.

Nor can we properly assess what the builders of the next century will consider to be unreasonable. After all, just 50 years ago, well-informed men predicted that the automobile would never become practicable because the nation would have to spend millions on highway construction. Today the money spent on highways, oil refineries, service stations, auto manufacturing, and associated sub-industries must total many hundreds of billions of dollars. Yes-

terday's savants also clearly saw that the airplane would never amount to much, for the same reason. Who would spend the money on runways and airports, when you could already travel swiftly by train or ship?

Finally, we should remember that the cost of transforming Mars would probably not be borne by the United States alone. While the moon has some political and perhaps even military advantages, Mars is too far away for any nation to attempt to reach single-handedly. Manned expeditions to Mars will probably be international efforts supervised by the United Nations. In any event, a considerable portion of the wealth necessary to do the job would come from Mars itself, not Earth. The factories and much of the machinery to go into them would be built on Mars, of Martian materials.

#### The Shape of Tomorrow

WE can envision, then, a program of planetary engineering on Mars. At first, men will live inside domed bases. The domes could be made quite large; they would be supported by internal air pressure alone. Transparent by day to allow sunlight in, the domes would be made opaque at night—possibly by polarizing techniques—to prevent precious heat from escap-

ing. Men journeying outside the domes will need protective equipment only slightly less elaborate than a full-fledged spacesuit. Transportation will be restricted to ground vehicles or rockets. Under these conditions, Mars will be explored. The native life will be thoroughly examined and eventually enclosed in protective domes to shield it from the changes that man will make in Mars' environment.

Then the factories will be built, and the immense task of mining and transporting the limonite will begin. The total amount of limonite to be processed will be equal, at a rough guess, to stripping the entire surface of the planet down to a depth of about three feet. Mars' surface area, remember, is about equivalent to the total land area on Earth. Thousands of factories of truly gigantic size would be needed, especially if it becomes desirable to try to transform Mars within a century or two. The real question, of course, is: Why bother? That is a question that can only be answered by the men who actually land on Mars.

*(Next month, the alien planets—Mercury, Jupiter, Saturn, Uranus, Neptune and Pluto—are considered as sites for planetary engineering, together with the possible planets of other stars.)*

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*The odds were stacked against the  
fun-starved settlers anyway you looked  
at it. So, in the long run, you had  
to look at it two ways . . .*

## *a GAME of UNCHANCE*

By PHILIP K. DICK  
Illustrated by SCHELLING

WHILE rolling a fifty-gallon drum of water from the canal to his potato garden, Bob Turk heard the roar, glanced up into the haze of the midafternoon Martian sky and saw the great blue interplan ship.

In excitement he waved. And then he read the words painted on the side of the ship and his joy became alloyed with care. Because this great pitted hull, now lowering itself to a rear-end landing, was a carny ship, come to this region of the fourth planet to transact business.

The painting spelled out:

FALLING STAR ENTERTAIN-  
MENT ENTERPRISES PRE-  
SENTS:

FREAKS, MAGIC, TERRIFYING  
STUNTS, AND WOMEN!

The final word had been painted largest of all.

I better go tell the settlement council, Turk realized. He left his water drum and trotted toward the shop-area, panting as his lungs struggled to take in the thin, weak air of this unnatural, colonized world. Last time a carnival had come to their area they had been robbed of most of their crops—accepted by the pitchmen in barter—and had wound up with nothing more than an armload of useless plaster figurines. It would not happen again. And yet—

He felt the craving within him, the need to be entertained.

And they all felt this way; the settlement yearned for the bizarre. Of course the pitchmen knew this, preyed off this. Turk thought, If only we could keep our heads. Barter excess food and cloth-fibers, not what we need . . . not become like a lot of kids. But life in the colony world was monotonous. Carting water, fighting bugs, repairing fences, ceaselessly tinkering with the semi-autonomous robot farm machinery which sustained them . . . it wasn't enough; it had no—culture. No solemnity.

"Hey," Turk called as he reached Vince Guest's land; Vince sat aboard his one-cylinder plow, wrench in hand. "Hear the noise? Company! More side-shows, like last year—remember?"

"I remember," Vince said, not looking up. "They got all my squash. The hell with traveling shows." His face became dark.

"This is a different outfit," Turk explained, halting. "I never saw them before; they've got a *blue* ship and it looks like it's been everywhere. You know what we're going to do? Remember our plan?"

"Some plan," Vince said, closing the jaw of the wrench.

"Talent is talent," Turk babbled, trying to convince—not merely Vince—but himself as well; he talked against his own alarm. "All right, so Fred's sort

of half-witted; his talent's genuine, I mean, we've tried it out a million times, and why we didn't use it against that carny last year I'll never know. But now we're organized. Prepared."

Raising his head Vince said, "You know what that dumb kid will do? He'll join the carny; he'll leave with it and he'll use his talent on their side—we can't trust him."

"I trust him," Turk said, and hurried on toward the buildings of the settlement, the dusty, eroded gray structures directly ahead. Already he could see their council chairman, Hoagland Rae, busy at his store; Hoagland rented tired pieces of equipment to settlement members and they all depended on him. Without Hoagland's contraptions no sheep would get sheared, no lambs would be distailed. It was no wonder that Hoagland had become their political—as well as economic—leader.

STEPPING out onto the hard-packed sand, Hoagland shaded his eyes, wiped his wet forehead with a folded handkerchief and greeted Bob Turk. "Different outfit this time?" His voice was low.

"Right," Turk said, his heart pounding. "And we can take them, Hoag! If we play it right; I mean, once Fred—"

"They'll be suspicious," Hoag-

land said thoughtfully. "No doubt other settlements have tried to use Psi to win. They may have one of those—what do you call them?—those anti-Psi folks with them. Fred's a p-k and if they have an anti-p-k—" He gestured, showing his resignation.

"I'll go tell Fred's parents to get him from school," Bob Turk panted. "It'd be natural for kids to show up right away; let's close the school for this afternoon so Fred's lost in the crowd, you know what I mean? He doesn't look funny, not to me, anyhow." He sniggered.

"True," Hoagland agreed, with dignity. "The Costner boy appears quite normal. Yes, we'll try; that's what we voted to do anyhow, we're committed. Go sound the surplus-gathering bell so these carny boys can see we've got good produce to offer—I want to see all those apples and walnuts and cabbages and squash and pumpkins piled up—" He pointed to the spot. "And an accurate inventory sheet, with three carbons, in my hands, within one hour." Hoagland got out a cigar, lit up with his lighter. "Get going."

Bob Turk went.

AS they walked through their south pasture, among the black-face sheep who chewed the hard, dry grass, Tony Costner said to his son, "You think you

can manage it, Fred? If not, say so. You don't have to."

Straining, Fred Costner thought he could dimly see the carnival, far off, arranged before the up-ended interplan ship. Booths, shimmering big banners and metal streamers that danced in the wind . . . and the recorded music, or was it an authentic calliope? "Sure," he muttered. "I can handle them; I've been practicing every day since Mr. Rae told-me." To prove it he caused a rock lying ahead of them to skim up, pass in an arc, start toward them at high speed and then drop abruptly back to the brown, dry grass. A sheep regarded it dully and Fred laughed.

A small crowd from the settlement, including children, had already manifested itself among the booths now being set up; he saw the cotton candy machine hard at work, smelled the frying popcorn, saw with delight a vast cluster of helium-filled balloons carried by a gaudily-painted dwarf wearing a hobo costume.

His father said quietly, "What you must look for, Fred, is the game which offers the really valuable prizes."

"I know," he said, and began to scan the booths. We don't have a need for hula-hula dolls, he said to himself. Or boxes of salt water taffy.

Somewhere in the carnival lay the real spoils. It might be in the

money-pitching board or the spinning wheel or the bingo table; anyhow it was there. He scented it, sniffed it. And hurried.

In a weak, strained voice his father said, "Um, maybe I'll leave you, Freddy." Tony had seen one of the girl platforms and had turned toward it, unable to take his eyes from the scene. One of the girls was already—but then the rumble of a truck made Fred Costner turn, and he forgot about the high-breasted, unclad girl on the platform. The truck was bringing the produce of the settlement, to be bartered in exchange for tickets.

The boy started toward the truck, wondering how much Hoagland Rae had decided to put up this time after the awful licking they had taken before. It looked like a great deal and Fred felt pride; the settlement obviously had full confidence in his abilities.

He caught then the unmistakable stench of Psi.

It emanated from a booth to his right and he turned at once in that direction. This was what the carny people were protecting, this one game which they did not feel they could afford to lose. It was, he saw, a booth in which one of the freaks acted as the target; the freak was a no-head, the first Fred had ever seen, and he stopped, transfixed.

The no-head had no head at all and his sense organs, his eyes and nose and ears, had migrated to other parts of his body beginning in the period before birth. For instance, his mouth gaped from the center of his chest, and from each shoulder an eye gleamed; the no-head was deformed but not deprived, and Fred felt respect for him. The no-head could see, smell and hear as good as anyone. But what exactly did he do in the game?

In the booth the no-head sat within a basket suspended above a tub of water. Behind the no-head Fred Costner saw a target and then he saw the heap of baseballs near at hand and he realized how the game worked; if the target were hit by a ball the no-head would plunge into the tub of water. And it was to prevent this that the carny had directed its Psi powers; the stench here was overpowering. He could not, however, tell from whom the stench came, the no-head or the operator of the booth or from a third person as yet unseen.

**T**HE operator, a thin young woman wearing slacks and a sweater and tennis shoes, held a baseball toward Fred. "Ready to play, captain?" she demanded and smiled at him insinuatingly, as if it was utterly in the realm of the impossible that he might play and win.

"I'm thinking," Fred said. He was scrutinizing the prizes.

The no-head giggled and the mouth located in the chest said, "He's thinking—I doubt that!" It giggled again and Fred flushed.

His father came up beside him. "Is this what you want to play?" he said. Now Hoagland Rae appeared; the two men flanked the boy, all three of them studying the prizes. What were they? Dolls, Fred thought. At least that was their appearance; the vaguely male, small shapes lay in rows on the shelves to the left of the booth's operator. He could not for the life of him fathom the carny's reasons for protecting these; surely they were worthless. He moved closer, straining to see . . .

Leading him off to one side Hoagland Rae said worriedly, "But even if we win, Fred, what do we get? Nothing we can use, just those plastic figurines. We can't barter those with other settlements, even." He looked disappointed; the corners of his mouth turned down dismally.

"I don't think they're what they seem," Fred said. "But I don't actually know what they are. Anyhow let me try, Mr. Rae; I know this is the one." And the carny people certainly believed so.

"I'll leave it up to you," Hoagland Rae said, with pessimism;

he exchanged glances with Fred's father, then slapped the boy encouragingly on the back. "Let's go," he announced. "Do your best, kid." The group of them—joined now by Bob Turk—made their way back to the booth in which the no-head sat with shoulder eyes gleaming.

"Made up your mind, people?" the thin stony-faced girl who operated the booth asked, tossing a baseball and recatching it.

"Here." Hoagland handed Fred an envelope; it was the proceeds from the settlement's produce, in the form of carny tickets—this was what they had obtained in exchange. This was all there was, now.

"I'll try," Fred said to the thin girl, and handed her a ticket.

The thin girl smiled, showing sharp, small teeth.

"Put me in the drink!" the no-head babbled. "Dunk me and win a valuable prize!" It giggled again, in delight.

THAT night, in the workshop behind his store, Hoagland Rae sat with a jeweler's loup in his right eye, examining one of the figurines which Tony Costner's boy had won at the Falling Star Entertainment Enterprises carnival earlier in the day.

Fifteen of the figurines lay in a row against the far wall of Hoagland's workshop.

With a tiny pair of pliers

Hoagland pried open the back of the doll-like structure and saw, within, intricate wiring. "The boy was right," he said to Bob Turk, who stood behind him smoking a synthetic tobacco cigarette in jerky agitation. "It's not a doll; it's fully rigged. Might be UN property they stole; might even be a microrob. You know, one of those special autonomic mechanisms the government uses for a million tasks from spying to reconstruct surgery for war vets." Now, gingerly, he opened the front of the figurine.

More wiring, and the miniature parts which even under the loup were exceedingly difficult to make out. He gave up; after all, his ability was limited to repairing power harvesting equipment and the like. This was just too much. Again he wondered exactly how the settlement could make use of these microrobs. Sell them back to the UN? And meanwhile, the carnival had packed up and gone. No way to find out from them what these were.

"Maybe it walks and talks," Turk suggested.

Hoagland searched for a switch on the figurine, found none. Verbal order? he wondered. "Walk," he ordered it. The figurine remained inert. "I think we've got something here," he said to Turk. "But—" He gestured. "It'll take time; we've got

to be patient." Maybe if they took one of the figurines to M City, where the truly professional engineers, electronics experts and repairmen of all kinds could be found . . . but he wanted to do this himself; he distrusted the inhabitants of the one great urban area on the colony planet.

"Those carny people sure were upset when we won again and again," Bob Turk chuckled. "Fred, he said that they were exerting their own Psi all the time and it completely surprised them that—"

"Be quiet," Hoagland said. He had found the figurine's power supply; now he needed only to trace the circuit until he came to a break. By closing the break he could start the mechanism into activity; it was—or rather it seemed—as simple as that.

**S**HORTLY, he found the interruption in the circuit. A microscopic switch, disguised as the belt buckle of the figurine . . . exulting, Hoagland closed the switch with his needle-nose pliers, set the figurine down on his workbench and waited.

The figurine stirred. It reached into a pouch-like construct hanging at its side, a sort of purse; from the pouch it brought a tiny tube, which it pointed at Hoagland.

"Wait," Hoagland said feebly. Behind him Turk bleated and

scuttled for cover. Something boomed in his face, a light that thrust him back; he shut his eyes and cried out in fright. *We're being attacked!* he shouted, but his voice did not sound; he heard nothing. He was crying uselessly in a darkness which had no end. Groping, he reached out imploringly . . .

The settlement's registered nurse was bending over him, holding a bottle of ammonia at his nostrils. Grunting, he managed to lift his head, open his eyes. He lay in his workshop; around him stood a ring of settlement adults, Bob Turk foremost, all with expressions of gray alarm.

"Those dolls or whatever," Hoagland managed to whisper. "Attacked us; be careful." He twisted, trying to see the line of dolls which he had so carefully placed against the far wall. "I set one off prematurely," he mumbled. "By completing the circuit; I tripped it so now we know." And then he blinked.

The dolls were gone.

"I went for Miss Beason," Bob Turk explained, "and when I got back they had disappeared. Sorry." He looked apologetic, as if it were his personal fault. "But you were hurt; I was worried you were maybe dead."

"Okay," Hoagland said, pulling himself up; his head ached and he felt nauseated. "You did

right. Better get that Costner kid in here, get his opinion." He added, "Well, we've been taken. For the second year in a row. Only this time is worse." This time, he thought, we won. We were better off last year when we merely lost.

He had an intimation of true foreboding.

FOUR days later, as Tony Costner hoed weeds in his squash garden, a stirring of the ground made him pause; he reached silently for the pitchfork, thinking, It's an m-gopher, down under, eating the roots. I'll get it. He lifted the pitchfork, and, as the ground stirred once more, brought the tines of the fork savagely down to penetrate the loose, sandy soil.

Something beneath the surface squeaked in pain and fright. Tony Costner grabbed a shovel, dug the dirt away. A tunnel lay exposed and in it, dying in a heap of quivering, pulsating fur, lay—as he had from long experience anticipated—a Martian gopher, its eyes glazed in agony, elongated fangs exposed.

He killed it, mercifully. And then bent down to examine it. Because something had caught his eye: a flash of metal.

The m-gopher wore a harness.

It was artificial, of course; the harness fitted snugly around the animal's thick neck. Almost in-

visible, hair-like wires passed from the harness and disappeared into the scalp of the gopher near the front of the skull.

"Lord," Tony Costner said, picking the gopher and its harness up and standing in futile anxiety, wondering what to do. Right away he connected this with the carnival dolls; they had gone off and done this, made this—the settlement, as Hoagland had said, was under attack.

He wondered what the gopher would have done had he not killed it.

The gopher had been up to something. Tunneling toward—his house!

Later, he sat beside Hoagland Rae in the workshop; Rae, with care, had opened the harness, inspected its interior.

"A transmitter," Hoagland said, and breathed out noisily, as if his childhood asthma had returned. "Short range, maybe half a mile. The gopher was directed by it, maybe gave back a signal that told where it was and what it was doing. The electrodes to the brain probably connect with pleasure and pain areas . . . that way the gopher could be controlled." He glanced at Tony Costner. "How'd you like to have a harness like that on you?"

"I wouldn't," Tony said, shivering. He wished, all at once, that he was back on Terra, over-

crowded as it was; he longed for the press of the crowd, the smells and sounds of great throngs of men and women, moving along the hard sidewalks, among the lights. It occurred to him then, in a flash, that he had never really enjoyed it here on Mars. Far too lonely, he realized. I made a mistake. My wife; she made me come here.

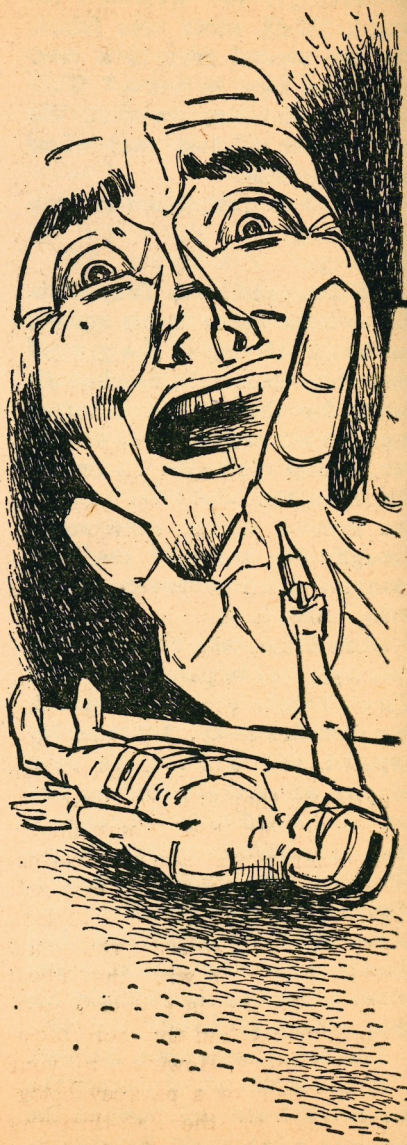
It was a trifle late, however, to think that now.

"I guess," Hoagland said stonily, "that we'd better notify the UN military police." He went with dragging steps to the wall-phone, cranked it, then dialed the emergency number. To Tony he said, half in apology, half in anger, "I can't take responsibility for handling this, Costner; it's too difficult."

"It's my fault too," Tony said. "When I saw that girl, she had taken off the upper part of her garment and—"

"UN regional security office," the phone declared, loudly enough for Tony Costner to hear it.

"We're in trouble," Hoagland said. And explained, then, about the Falling Star Entertainment Enterprises ship and what had happened. As he talked he wiped his streaming forehead with his handkerchief; he looked old and tired, and very much in need of a rest.



AN hour later the military police landed in the middle of the settlement's sole street. A uniformed UN officer, middle-aged, with a briefcase, stepped out, glanced around in the yellow late-afternoon light, made out the sight of the crowd with Hoagland Rae placed officially in front. "You are General Mozart?" Hoagland said tentatively, holding his hand out.

"That's correct," the heavy-set UN officer said, as they shook briefly. "May I see the construct, please?" He seemed a trifle disdainful of the somewhat grimy settlement people; Hoagland felt that acutely, and his sense of failure and depression burgeoned.

"Sure, general." Hoagland led the way to his store and the workshop in the rear.

After he had examined the dead m-gopher with its electrodes and harness, General Mozart said, "You may have won artifacts they did *not* want to give up, Mr. Rae. Their final—in other words actual—destination was probably not this settlement." Again his distaste showed, ill-disguised; who would want to bother with this area? "But, and this is a guess, eventually Earth and the more populated regions. However, by your employment of a parapsychological bias on the ball-throwing game—" He broke off, glanced at

his wristwatch. "We'll treat the fields in this vicinity with arsine gas, I think; you and your people will have to evacuate this whole region, as a matter of fact tonight; we'll provide a transport. May I use your phone? I'll order the transport—you assemble all your people." He smiled reflexively at Hoagland and then went to the telephone to place his call back to his office in M City.

"Livestock, too?" Rae said. "We can't sacrifice them." He wondered just how he was supposed to get their sheep, dogs and cattle into the UN transport in the middle of the night. What a mess, he thought dully.

"Of course livestock," General Mozart said unsympathetically, as if Rae were some sort of idiot.

The third steer driven aboard the UN transport carried a harness at its neck; the UN military policeman at the entrance hatch spotted it, shot the steer at once, summoned Hoagland to dispose of the carcass.

Squatting by the dead steer, Hoagland Rae examined the harness and its wiring. As with the m-gopher, the harness, connected by delicate leads, the brain of the animal to the sentient organism—whatever it was—which had installed the apparatus, located, he assumed, no further than a mile from the settlement. What was this animal supposed to do? he wondered as he disconnected

the harness. Gore one of us? Or—eavesdrop. More likely that; the transmitter within the harness hummed audibly; it was perpetually on, picking up all sounds in the vicinity. So they know we've brought in the military, Hoagland realized. And that we've detected two of these constructs, now.

He had a deep intuition that this meant the abolition of the settlement. This area would soon be a battleground between the UN military and the—whatever they were. Falling Star Entertainment Enterprises. He wondered where they were from. Outside the Sol System, evidently.

**K**NEELING momentarily beside him a blackjack—a black-clad UN secret police officer—said, "Cheer up. This tipped their hand; we could never prove those carnivals were hostile, before. Because of you they never made it to Terra. You'll be reinforced; don't give up." He grinned at Hoagland, then hurried off, disappearing into the darkness where a UN tank sat parked.

Yes, Hoagland thought. We did the authorities a favor. And they'll reward us by moving massively into this area.

He had a feeling that the settlement would never be quite the same again, no matter what the authorities did. Because, if noth-

ing else, the settlement had failed to solve its own problems; it had been forced to call for outside help. For the big boys.

Tony Costner gave him a hand with the dead steer; together they dragged it to one side, gasping for breath as they grappled with the still-warm body. "I feel responsible," Tony said, when they had set it down.

"Don't." Hoagland shook his head. "And tell your boy not to feel bad."

"I haven't seen Fred since this first came out," Tony said miserably. "He took off, terribly disturbed. I guess the UN MPs will find him; they're on the outskirts rounding everybody up." He sounded numb, as if he could not quite take in what was happening. "An MP told me that by morning we could come back. The arsine gas would have taken care of everything. You think they've run into this before? They're not saying but they seem so efficient. They seem so sure of what they're doing."

"Lord knows," Hoagland said. He lit a genuine Earth-made Optimo cigar and smoked in glum silence, watching a flock of black-face sheep being driven into the transport. Who would have thought the legendary, classic invasion of Earth would take this form? he asked himself. Starting here at our meager settlement, in terms of small wired figur-

ines, a little over a dozen in all, which we labored to win from Falling Star Entertainment Enterprises; as General Mozart said, the invaders didn't even want to give them up. Ironic.

Bob Turk, coming up beside him, said quietly, "You realize we're going to be sacrificed. That's obvious. Arsine will kill all the gophers and rats but it won't kill the microrobs because they don't breathe. The UN will have to keep blackjack squads operating in this region for weeks, maybe months. This gas attack is just the beginning." He turned accusingly to Tony Costner. "If your kid—"

"All right," Hoagland said in a sharp voice. "That's enough. If I hadn't taken that one apart, closed the circuit—you can blame me, Turk; in fact I'll be glad to resign. You can run the settlement without me."

Through a battery-driven loudspeaker a vast UN voice boomed, "All persons within sound of my voice prepare to board! This area will be flooded with poisonous gas at 14:00. I repeat—" It repeated, as the loudspeakers turned in first one direction and then another; the noise echoed in the night darkness.

**S**TUMBLING, Fred Costner made his way over the unfamiliar, rough terrain, wheez-

ing in sorrow and weariness; he paid no attention to his location, made no effort to see where he was going. All he wanted to do was get away. He had destroyed the settlement and everyone from Hoagland Rae on down knew it. Because of him—

Far away, behind him, an amplified voice boomed, "All persons within sound of my voice prepare to board! This area will be flooded with poisonous gas at 14:00. I repeat, all persons within sound of my voice—" It dinned on and on. Fred continued to stumble along, trying to shut out the racket of the voice, hurrying away from it.

The night smelled of spiders and dry weeds; he sensed the desolation of the landscape around him. Already he was beyond the final perimeter of cultivation; he had left the settlement's fields and now he stumbled over unplowed ground where no fences or even surveyor's stakes existed. But they would probably flood this area, too, however; the UN ships would coast back and forth, spraying the arsine gas, and then after that special forces troops would come in, wearing gas-masks, carrying flame throwers, with metal-sensitive detectors on their backs, to roust out the fifteen microrobs which had taken refuge underground in the burrows of rats and vermin. Where they

belong, Fred Costner said to himself. And to think I wanted them for the settlement; I thought, because the carnival wanted to keep them, that they must be valuable.

He wondered, dimly, if there was any way he could undo what he had done. Find the fifteen microrobs, plus the activated one which had almost killed Hoagland Rae? And—he had to laugh; it was absurd. Even if he found their hideout—assuming that all of them had taken refuge together in one spot—how could he destroy them? And they were armed. Hoagland Rae had barely escaped, and that had been from one acting alone.

A light glowed ahead.

In the darkness he could not make out the shapes which moved at the edge of the light; he halted, waited, trying to orient himself. Persons came and went and he heard their voices, muted, both men's and women's. And the sound of machinery in motion. The UN would not be sending out women, he realized. This was not the authorities.

A portion of the sky, the stars and faint nocturnal swath of haze, had been blotted out, and he realized all at once that he was seeing the outline of a large stationary object.

It could be a ship, parked on its tail, awaiting take-off; the shape seemed roughly that.

HE seated himself, shivering in the cold of the Martian night, scowling in an attempt to trace the passage of the indistinct forms busy with their activity. Had the carnival returned? Was this once more the Falling Star Entertainment Enterprises vehicle? Eerily, the thought came to him: the booths and banners and tents and platforms, the magic shows and girl platforms and freaks and games of chance were being erected here in the middle of the night, in this barren area lost in the emptiness between settlements. A hollow enactment of the festivity of the carny life, for no one to see or experience. Except—by chance—himself. And to him it was revolting; he had seen all he wanted of the carnival, its people and—things.

Something ran across his foot.

With his psycho-kinetic faculty he snared it, drew it back; reaching, he grabbed with both hands until all at once he had snatched out of the darkness a thrashing, hard shape. He held it, and saw with fright one of the microrobs; it struggled to escape and yet, reflexively, he held onto it. The microrob had been scurrying toward the parked ship, and he thought. The ship's picking them up. So they won't be found by the UN. They're getting away, then the carnival can go on with its plans.

A calm voice, a woman's, said from close by, "Put it down, please. It wants to go."

Jumping with shock he released the microrob and it scuttled off, rustling in the weeds, gone at once. Standing before Fred the thin girl, still wearing slacks and a sweater, faced him placidly, a flashlight in her hand; by its circle of illumination he made out her sharply-traced features, her colorless jaw and intense, clear eyes. "Hi," Fred said stammeringly; he stood up, defensively, facing the girl. She was slightly taller than he and he felt afraid of her. But he did not catch the stench of Psi about her and he realized that it had definitely not been she there in the booth who had struggled against his own faculty during the game. So he had an advantage over her, and perhaps one she did not know about.

"You better get away from here," he said. "Did you hear the loudspeaker? They're going to gas this area."

"I heard." The girl surveyed him. "You're the big winner, aren't you, sonny? The master game-player; you dunked our anti-ceph sixteen times in a row." She laughed merrily. "Simon was furious; he caught cold from that and blames you. So I hope you don't run into him."

"Don't call me sonny," he said. His fear began to leave him.

"Douglas, our p-k, says you're strong. You wrestled him down every time; congratulations. Well, how pleased are you with your take?" Silently, she once more laughed; her small sharp teeth shone in the meager light. "You feel you got your produce's worth?"

"Your p-k isn't much good," Fred said. "I didn't have any trouble and I'm really not experienced. You could do a lot better."

"With you, possibly? Are you asking to join us? Is this a proposition from you to me, little boy?"

"No!" he said, startled and repelled.

"There was a rat," the girl said, "in the wall of your Mr. Rae's workshop; it had a transmitter on it and so we knew about your call to the UN as soon as you made it. So we've had plenty of time to regain our—" She paused a moment. "Our merchandise. If we cared to. Nobody meant to hurt you; it isn't our fault that busybody Rae stuck the tip of his screwdriver into the control-circuit of that one microrob. Is it?"

"He started the cycle prematurely. It would have done that eventually anyhow." He refused to believe otherwise; he knew the settlement was in the right. "And it's not going to do you any good to collect all those mi-

rorobs because the UN knows and—”

“‘Collect?’” The girl rocked with amusement. “We’re not collecting the sixteen microrobs you poor little people won. We’re going ahead—you forced us to. The ship is unloading the rest of them.” She pointed with the flashlight and he saw in that brief instant the horde of microrobs disgorged, spreading out, seeking shelter like so many photophobic insects.

He shut his eyes and moaned.

“Are you still sure,” the girl said purringly, “that you don’t want to come with us? It’ll insure your future, sonny. And otherwise—” She gestured. “Who knows? Who really can guess what’ll become of your tiny settlement and you poor tiny people?”

“No,” he said. “I’m still not coming.”

When he opened his eyes again the girl had gone off. She stood with the no-head, Simon, examining a clipboard which the no-head held.

Turning, Fred Costner ran back the way he had come, toward the UN military police.

**T**HE lean, tall, black-uniformed UN secret police general said, “I have replaced General Mozart who is unfortunately ill-equipped to deal with domestic subversion; he is a mili-

tary man exclusively.” He did not extend his hand to Hoagland Rae. Instead he began to pace about the workshop, frowning. “I wish I had been called in last night. For example I could have told you one thing immediately . . . which General Mozart did not understand.” He halted, glanced searchingly at Hoagland. “You realize, of course, that you did not beat the carnival people. They wanted to lose those sixteen microrobs.”

Hoagland Rae nodded silently; there was nothing to say. It now did appear obvious, as the black-jack general had pointed out.

“Prior appearances of the carnival,” General Wolff said, “in former years, was to set you up, to set each settlement up in turn. They knew you’d have to plan to win this time. So this time they brought their microrobs. And had their weak Psi ready to engage in an ersatz ‘battle’ for supremacy.”

“All I want to know,” Hoagland said, “is whether we’re going to get protection.” The hills and plains surrounding the settlement, as Fred had told them, were now swarming with the microrobs; it was unsafe to leave the downtown buildings.

“We’ll do what we can.” General Wolff resumed pacing. “But obviously we’re not primarily concerned with you, or with any other particular settlement or lo-

cale that's been invested. It's the overall situation that we have to deal with. That ship has been forty places in the last twenty-four hours; how they've moved so swiftly—" He broke off. "They had every step prepared. And you thought you conned them." He glowered at Hoagland Rae. "Every settlement along the line thought that as they won their boxload of microrobs."

"I guess," Hoagland said presently, "that's what we get for cheating." He did not meet the blackjack general's gaze.

"That's what you get for pitting your wits against an adversary from another system," General Wolff said bitingly. "Better look at it that way. And the next time a vehicle *not* from Terra shows up—don't try to mastermind a strategy to defeat them: *call us.*"

Hoagland Rae nodded. "Okay. I understand." He felt only dull pain, not indignation; he deserved—they all deserved—this chewing out. If they were lucky their reprimand would end at this. It was hardly the settlement's greatest problem. "What do they want?" he asked General Wolff. "Are they after this area for colonization? Or is this an economic—"

"Don't try," General Wolff said.

"P-pardon?"

"It's not something you can

understand, now or at any other time. We know what they're after—and *they* know what they're after. It is important that you know, too? Your job is to try to resume your farming as before. Or if you can't do that, pull back and return to Earth."

"I see," Hoagland said, feeling trivial.

"Your kids can read about it in the history books," General Wolff said. "That ought to be good enough for you."

"It's just fine," Hoagland Rae said, miserably. He seated himself halfheartedly at his workbench, picked up a screwdriver and began to tinker with a malfunctioning autonomic tractor guidance-turret.

"Look," General Wolff said, and pointed.

**I**N a corner of the workshop, almost invisible against the dusty wall, a microrob crouched watching them.

"Jeez!" Hoagland wailed, groping around on his workbench for the old .32 revolver which he had gotten out and loaded.

Long before his fingers found the revolver the microrob had vanished. General Wolff had not even moved; he seemed, in fact, somewhat amused: he stood with his arms folded, watching Hoagland fumbling with the antiquated side arm.

"We're working on a central device," General Wolff said, "which would cripple all of them simultaneously. By interrupting the flow of current from their portable power-packs. Obviously to destroy them one by one is absurd; we never even considered it. However—" He paused thoughtfully, his forehead wrinkling. "There's reason to believe they—the outspacers—have anticipated us and have diversified the power-sources in such a way that—" He shrugged philosophically. "Well, perhaps something else will come to mind. In time."

"I hope so," Hoagland said. And tried to resume his repair of the defective tractor turret.

"We've pretty much given up the hope of holding Mars," General Wolff said, half to himself.

Hoagland slowly set down his screwdriver, stared at the secret policeman.

"What we're going to concentrate on is Terra," General Wolff said, and scratched his nose reflectively.

"Then," Hoagland said after a pause, "there's really no hope for us here; that's what you're saying."

The blackjack general did not answer. He did not need to.

AS he bent over the faintly greenish, scummy surface of the canal where botflies and

shiny black beetles buzzed, Bob Turk saw, from the corner of his vision, a small shape scuttle. Swiftly he spun, reached for his laser cane; he brought it up, fired it and destroyed—oh happy day!—a heap of rusted, discarded fuel drums, nothing more. The microrob had already departed.

Shakily he returned the laser cane to his belt and again bent over the bug-infested water. As usual the 'robs had been active here during the night; his wife had seen them, heard their rat-like scratchings. What the hell had they done? Bob Turk wondered dismally, and sniffed long and hard at the water.

It seemed to him that the customary odor of the stagnant water was somehow subtly changed.

"Damn," he said, and stood up, feeling futile. The 'robs had put some contaminator in the water; that was obvious. Now it would have to be given a thorough chemical analysis and that would take days. Meanwhile, what would keep his potato crop alive? Good question.

Raging in baffled helplessness, he pawed the laser cane, wishing for a target—and knowing he would never, not in a million years, have one. As always the 'robs did their work at night; steadily, surely, they pushed the settlement back.

Already ten families had packed up and taken passage for

Terra. To resume—if they could—the old lives which they had abandoned.

And, soon, it would be his turn.

If only there was something they could do. Some way they could fight back. He thought, I'd do anything, give anything, for a chance to get those 'robs. I swear it. I'd go into debt or bondage or servitude or anything, just for a *chance* of freeing the area of them.

He was shuffling morosely away from the canal, hands thrust deep in the pockets of his jacket, when he heard the booming roar of the intersystem ship overhead.

Calcified, he stood peering up, his heart collapsing inside him. Them back? he asked himself. The Falling Star Entertainment Enterprises ship . . . are they going to hit us all over again, finish us off finally? Shielding his eyes he peered frantically, not able even to run, his body not knowing its way even to instinctive, animal panic.

The ship, like a gigantic orange, lowered. Shaped like an orange, colored like an orange . . . it was not the blue tubular ship of the Falling Star people; he could see that. But also it was not from Terra; it was not UN. He had never seen a ship exactly like it before and he knew that he was definitely seeing another vehicle from beyond the

Sol System, much more blatantly so than the blue ship of the Falling Star creatures. Not even a cursory attempt had been made to make it appear Terran.

And yet, on its sides, it had huge letters which spelled out words in English.

**H**IS lips moving he read the words as the ship settled to a landing north-east of the spot at which he stood.

SIX SYSTEM EDUCATIONAL  
PLAYTIME ASSOCIATES IN A  
RIOT OF FUN AND FROLIC FOR  
ALL!

It was—god in heaven—another itinerant carnival company.

He wanted to look away, to turn and hurry off. And yet he could not; the old familiar drive within him, the craving, the fixated curiosity, was too strong. So he continued to watch; he could see several hatches open and autonomic mechanisms beginning to nose, like flattened doughnuts, out onto the sand.

They were pitching camp.

Coming up beside him his neighbor Vince Guest said hoarsely, "Now what?"

"You can see." Turk gestured frantically. "Use your eyes." Already the auto-mechs were erecting a central tent; colored streamers hurled themselves upward into the air and then rained down on the still two-dimensional booths. And the first humans

—or humanoids—were emerging. Vince and Bob saw men wearing bright clothing and then women in tights. Or rather something considerably less than tights.

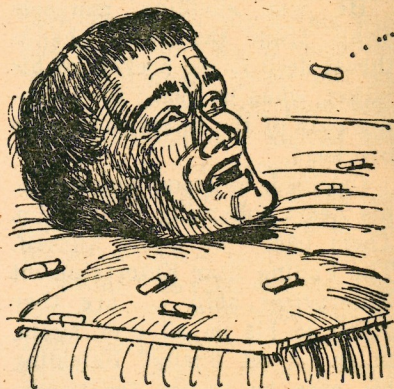
"Wow," Vince managed to say, swallowing. "You see those ladies? You ever seen women with such—"

"I see them," Turk said. "But I'm never going back to one of these non-Terran carnivals from beyond the system and neither is Hoagland; I know that as well as I know my own name."

How rapidly they were going to work. No time wasted; already faint, tinny music, of a carousal nature, filtered to Bob Turk. And the smells. Cotton candy, roasting peanuts, and with those the subtle smell of adventure and exciting sights, of the illicit. One woman with long braided red hair had hopped lithely up onto a platform; she wore a meager bra and wisp of silk at her waist and as he watched fixedly she began to practice her dance. Faster and faster she spun until at last, carried away by the rhythm, she discarded entirely what little she wore. And the funny thing about it all was that it seemed to him real art; it was not the usual carny shimmying at the midsection. There was something beautiful and alive about her movements; he found himself spell-bound.

"I—better go get Hoagland," Vince managed to say, finally. Already a few settlers, including a number of children, were moving as if hypnotized toward the lines of booths and the gaudy streamers that fluttered and shone in the otherwise drab Martian air.

"I'll go over and get a closer look," Bob Turk said, "while



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you're locating him." He started toward the carnival on a gradually accelerating run, scuffing sand as he hurried.

**T**O Hoagland, Tony Costner said, "At least let's see what they have to offer. You know they're not the same people; it wasn't them who dumped those horrible damn microrobs off here—you can see that."

"Maybe it's something worse," Hoagland said, but he turned to the boy, Fred. "What do you say?" he demanded.

"I want to look," Fred Costner said. He had made up his mind.

"Okay," Hoagland said, nodding. "That's good enough for me. It won't hurt us to look. As long as we remember what that UN secret police general told us. Let's not kid ourselves into imagining we can outsmart them." He put down his wrench, rose from his workbench, and walked to the closet to get his fur-lined outdoor coat.

When they reached the carnival they found that the games of chance had been placed—conveniently—ahead of even the girly shows and the freaks. Fred Costner rushed forward, leaving the group of adults behind; he sniffed the air, took in the scents, heard the music, saw past the games of chance the first freak platform: it was his favorite abomination, one he remembered from previous carnivals, only this one was superior. It was a no-body. In the midday Martian sunlight it reposed quietly: a bodiless head complete with hair, ears, intelligent eyes; heaven only knew what kept it alive . . . in any case he knew intuitively that it was genuine.

"Come and see Orpheus, the head without a visible body!" the pitchman called through his meg-

aphone, and a group, mostly children, had gathered in awe to gape. "How does it stay alive? How does it propel itself? Show them, Orpheus." The pitchman tossed a handful of food pellets—Fred Costner could not see precisely what—at the head; it opened its mouth to enormous, frightening proportions, managed to snare most of what landed near it. The pitchman laughed and continued with his spiel. The no-body was now rolling industriously after the bits of food which it had missed. Gee, Fred thought.

"Well?" Hoagland said, coming up beside him. "Do you see any games we might profit from?" His tone was drenched with bitterness. "Care to throw a baseball at anything?" He started away, then, not waiting, a tired little fat man who had been defeated too much, who had already lost too many times. "Let's go," he said to the other adults of the settlement. "Let's get out of here before we get into another—"

"Wait," Fred said. He had caught it, the familiar, pleasing stench. It came from a booth on his right and he turned at once in that direction.

A PLUMP, gray-colored middle-aged woman stood in a ringtoss booth, her hands full of the light wicker rings.

Behind Fred his father said to Hoagland Rae, "You get the rings over the merchandise; you win whatever you manage to toss the ring onto so that it stays." With Fred he walked slowly in that direction. "It would be a natural," he murmured, "for a psycho-kinetic. I would think."

"I suggest," Hoagland said, speaking to Fred, "that you look more closely this time at the prizes. At the merchandise." However, he came along, too.

At first Fred could not make out what the neat stacks were, each of them exactly alike, intricate and metallic; he came up to the edge of the booth and the middle-aged woman began her chant-like litany, offering him a handful of rings. For a dollar, or whatever of equal value the settlement had to offer.

"What are they?" Hoagland said, peering. "I—think they're some kind of machines."

Fred said, "I know what they are." And we've got to play, he realized. We must round up every item in the settlement that we can possibly trade these people, every cabbage and rooster and sheep and wool blanket.

Because, he realized, this is our chance. Maybe can save the settlement. Whether General Wolff knows about it or likes it.

"My god," Hoagland said quietly. "Those traps."

"That's right mister," the

middle-aged woman chanted. "Homeostatic traps; they do all the work, think for themselves, you just let them go and they travel and travel and they never give up until they catch—" She winked. "*You know what.* Yes, you know what they catch, mister, those little pesky things you can't ever possibly catch by yourselves, that are poisoning your water and killing your steers and ruining your settlement—win a trap, a valuable, useful trap, and you'll see, you'll see!" She tossed a vicker ring and it nearly settled over one of the complex, sleek-metal traps; it might very well have, if she had thrown it just a little more carefully. At least that was the impression given. They all felt this.

Hoagland said to Tony Costner and Bob Turk, "We'll need a couple hundred of them at least."

"And for that," Tony said, "we'll have to hock everything we own. But it's worth it; at least we won't be completely wiped out." His eyes gleamed. "Let's get started." To Fred he said, "Can you play this game? Can you win?"

"I—think so," Fred said. Although somewhere nearby, someone in the carnival was ready with a contrary power of psycho-kinesis. But not enough, he decided. *Not quite enough.*

It was almost as if they had worked it that way on purpose.

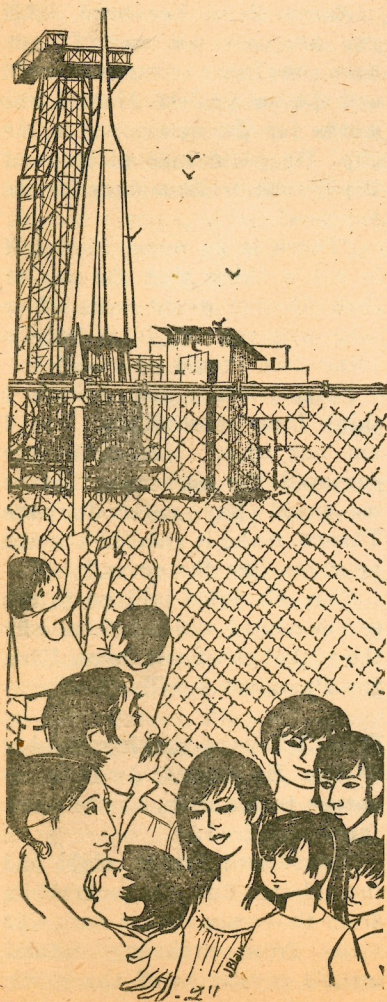
THE END

Estaban knew that something was wrong with a world where hydro-nuclear rockets and outdoor privies existed almost side by side. He also knew what to do about it.

# THE SCARLET THRONE

By EDWARD W. LUDWIG

Illustrated by BLAIR



ESTEBAN Hernandez scowled at the outhouse.

Hummmmmph, he thought. It was like the rump of an ancient cow carcass jutting up from sun-baked desert.

"It must not be," he muttered, crinkling his black, gray-flecked mustachio. "Jesus the Blessed, it must *not* be."

On rusty hinges, the door of the pock-marked structure creaked open. Maria emerged. She stood by cracked, dehydrated boards and peeling slivers of paint. The boards retained only a suggestion of their original scarlet.

His small wife frowned. "Esteban, you must forget what happens today. Forget the rocket. Stop torturing yourself."

"No!"

Esteban's thick-browed, bird-eyed gaze left the outhouse. It traveled over the carpet of spring grass and through the valley silence, down to the railroad tracks in front of his small yellow-brown home, to the three small yellow-brown homes of the other railroad section hands. It swept across the broad jetway and fields of thick alfalfa and toward the sloping hills to the north where lay a great desert.

It came to rest on a speck of silver, far away, glittering like a dim star in the early morning sunshine—the newest miracle of the world which was called a hydro-nuclear-powered rocket, the *Astra*, the biggest of them all, the biggest that had ever been.

In just one hour, the ceremonies would begin. Speeches would flow, cameras grind, a doll-faced blonde with long legs would smash glass and champagne onto the steel-skinned vessel. The *Astra* with its crew of five would be ready, tomorrow morning at sunrise, to spew forth its colossal energies and needle-nose a pioneer path past Luna and Mars and Venus, all the long, lonely way to Saturn, Uranus, Neptune, and Pluto!

"Today, Maria, the world must choose. Either that—" He shook his massive, hairy fist at the pinpoint of silver. "—or *this*." His paunchy body tensed, and he spat at the outhouse. "There can not be both."

Maria shook her head. "But you are only one man. If you have something to say, you could call the son of José Alvarez who works for the newspaper in the city. He could take pictures of the Throne, write a story for the paper—"

"There is no news, Maria. It is not a thing that the son of José Alvarez would write of or take pictures of. It is only a thing that should be said."

"You frighten me. Always I think I understand you. Now I am not sure." Her dark eyes surveyed the outhouse. "Maybe we could buy paint for the Throne, make it red like the sun or green like the grass."

"No, Maria! I will go to the ceremonies. I will tell them why the rocket must not leave. Even the President I will tell—"

**T**HERE were stirrings behind him. He paused. As if in response to his deep, angry voice, faces appeared:

Tomás and Santos, eight and ten, rising like sly jackrabbits from the grass, hands dark and moist from exploring unfathomable mysteries of the earth.

Then Alfonso and Frank, twelve and thirteen, striding up from the railroad tracks where, Esteban suspected, they'd been puffing cigarette butts behind the tool shed.

From the house, one by one: Rose, eleven, and Marguerite, nine, dressed in blue jeans like their brothers, pony-tails bobbing. And fifteen-year-old Conchita in a faded print dress, moving self-consciously; and last, from the side of the Throne, Joey, five, engaged in his perpetual occupation of sniffing and wiping his nose.

Esteban's family stood facing him like shaggy-haired steps on a human staircase.

"Are you going to make a speech to the President?" asked Marguerite.

"Are you going to stop them from launching the rocket?" asked Alfonso.

Esteban took a deep breath. "Si, I will say this: I will say, 'Señor President and people of California. I am Esteban Hernandez. I am a poor man. I work on the railroad, digging up old ties and burning weeds from tracks. But I am not a stupid man, and I have many thoughts in my head. I have a good wife and eight children who are always very hungry, so I can not afford to have a copter-jet or a jet-mobile or a beautiful house with magic hands and machines

to do our work. We have never spent a vacation on Mars or on the Moon or Africa or anywhere except here in the house of Esteban Hernandez.

"Now these things we do not mind, because it is better that eight children eat well on Earth than have a hungry vacation on the Moon. But the things we do not like is that I can not even afford to have a bathroom inside my house. Only outside. And even though we make jokes and call it a Throne, it is still a bathroom outside.'"

"Bravo!" shouted Alfonso, a mischievous gleam in his eyes.

"I will then say, 'You build what you call a hydro-nuclear rocket. You will send the rocket deeper into space than any rocket has ever gone. Now this should be a good thing, but I, Esteban Hernandez, still have a bathroom outside. My friends, José and Salvatore and Tony have bathrooms outside. If you look beyond our valley, across this land and other lands, you will see many more bathrooms outside until there are more of them than stars in the sky.

"The world is becoming like a great freight train going uphill. Your rocket is like the engine which is going so fast it breaks away from the caboose, which is like me and my people with bathrooms outside. Soon Esteban Hernandez and his peo-

ple will break away and we will be forgotten and forever lost. That, Señor President and good people, is why there should not be your hydro-nuclear rocket and bathrooms outside together, in the same land, in the same time.' ”

The children were silent. The grass stirred under a small breeze.

At length Conchita murmured, “I understand you, *Papá*. We must go to speak to the President and the people.”

“*Sí*,” agreed Maria.

“Yippee!” exclaimed Alfonso.

“*Viva!*” cried Joey.

**E**STEBAN parked the 1966 pickup outside the high metal fence. He and Maria slid out. The children scrambled down the tail-gate.

“They may make trouble for you,” said Maria, apprehensively.

“Nonsense,” said Esteban.

They walked through the entrance and into the area before the Administration Building.

A brassy Marine band was playing “America, the Beautiful,” the melody scratching and crackling through loudspeakers. A speaker’s platform was draped with red, white and blue bunting and held a row of dignified-looking, black-suited men who sat stiffly on folding metal chairs. There were seven baskets of

rhododendrons, five Boy Scout Troops, technicians fussing with whining microphones, TV-camera trucks, and a sea of audience white-capped with impatience.

Beyond the flat-topped Administration Building and the squat laboratories, in the shimmering desert distance, was the rocket that shone like a thousand stars scooped out of the night sky and molded into this silver, needle-nosed miracle. The rocket was a taut-boweled monster teased by scurrying technicians, haunted by trucks and gantry cranes, waiting for night and for tomorrow’s dawn, poised to grumble and swish and swoosh a path into infinity.

Before the Ad Building was a golden marker whose giant letters said:

HOME OF THE ASTRA: THE  
WORLD’S FIRST HYDRO-NU-  
CLEAR SPACE VESSEL.

Dedicated this 23rd day of  
June, 1981; To Serve All  
Humanity.

Esteban spat.

A smiling young woman walked up to them. She wore a neat brown suit of the U. S. Space Agency. “Good morning, sir. You’ll want some information about the *Astra*. This booklet tells about hydro-nuclear power, this one—”

Esteban brushed aside the booklets and walked down the

nearest aisle. Maria and the children followed.

The Marine band finished "America, the Beautiful." Brief applause. A moment of silence.

A hand tapped Esteban's shoulder. A bright-eyed young man in a Space Agency suit said, "There are no empty seats this close to the speaker's stand. If you'll please follow me back—"

Esteban continued his march.

"Sir, I said—"

Tight-fisted, chin locked, Esteban stomped forward.

"Sir! There are no seats!"

Esteban reached the speaker's platform. "*Señor* President—"

The band exploded with "The Star Spangled Banner." Everyone rose.

Esteban stiffened and laid his palm over his heart. He waited.

The band finished.

"Sir, you'll have to go back."

A white-haired man on the platform began to speak. "My good friends—"

"One moment, *Señor!*" shouted Esteban. "I have words I must say!"

**A** STRONG hand seized his arm. He turned angrily and saw the flashing uniform of a stocky, hard-faced Army sergeant. "You can say them later, old fellow. Find a seat and be quiet."

"I, Esteban Hernandez, have words that must be said!"

Faces turned toward Esteban. The white-haired man on the platform hesitated and cleared his throat.

The grip on Esteban's arm hardened. A second military policeman appeared. "Let's go, old man."

Maria tugged at his shirt sleeve. "*Papá*, you must not get into trouble."

"But, but—"

"*Papá*," said Chonchita, softly, "they won't let you speak."

"But, but—"

The hands tightened on his arms. It suddenly seemed as if a thousand hands were upon him, upon his shoulders, arms, thighs, buttocks. He was borne upward, puffing, a cork on a rolling sea of hands. Faces spun and flashed before his blinking eyes. There was laughter. His feet half floated, half stumbling over the ground.

The pressure of the hands diminished. His feet rediscovered the reassuring solidity of unmoving earth. He shook his head and saw he'd been carried beyond the wire fence surrounding the rocket testing grounds.

"Want to come with us, old fellow, or will you behave yourself?"

Esteban clenched his fists. He thought for a long, long moment. Then his craggy face brightened. "Esteban will behave himself."

The hands left him. The M. P.'s strode away. Maria sighed. The children stared downward, shoulders hunched. The silence was like an accusation.

Maria finally murmured, "Maybe now we call the son of José Alvarez who works for the newspaper. Maybe—"

Esteban snorted, "No, Maria. There is still not news, only something that must be said, and we do not call the son of José Alvarez. I am not defeated, my children. I will tell you what to do, but first back to the pickup. *Pronto!*"

THE family bestirred itself into new life. They clambered into the pickup. The first splutter of the engine crescendoed into a steady, determined chug. Esteban's big foot pressed the accelerator to the floorboard.

Swish!

With a screaming of brakes, the pickup jerked to a stop before the Throne.

"Out, out!" cried Esteban. "Everybody out! Alfonso, the crowbar! Frank, some rope! We lift up the Throne!"

"Esteban, are you sick?"

"No, Maria. I am well, but I was stupid. Their ears would not listen because there were other sounds. But their eyes can see! So we carry the Throne to the pickup, carefully, breaking

nothing, and we take it to the rocket grounds and drive through the gateway, up the aisle. We stop before the President's platform. That way, everyone will look and say, 'What is this thing?' And I, Esteban Hernandez, will say what has to be said. Frank, Alfonso, Tomás, Santos! Hurry! Conchita, the quick-lime! Rosa, the catalog! We will show them everything!"

Conchita asked, "The mirror, too, *Papá?*"

"*Sí*, the mirror, too, so they will know that Esteban teaches his children humility as they sit."

"Yippee!" shouted Alfonso.

"*Viva!*" cried Joey.

THE pickup chugged and rattled down the jetway.

*Whoosh.*

A jetmobile passed them.

*Swooommm.*

Another.

"Esteban, I am still afraid."

"Nonsense, Maria."

*Whoosh, swooommm, whoosh, swooommm.*

The pickup's engine coughed, spluttered, choked, died.

The pick-up glided to a stop.

"Esteban," sighed Maria, "we are out of gas."

Esteban's fist struck the steering wheel. "Then we push. Out, my children! Push!"

They pushed while Maria steered.

Traffic from the direction of the rocket grounds thickened. A wind was rising. Spring clouds were gathering in the north. The warmth of morning had dissolved into a coolness of late afternoon, but Esteban's shirt, beneath the armpits, was still dark with sweat.

"*Papá*," called Maria, "there is something wrong."

"Push harder!"

"The steering wheel, *Papá*! It is so loose!"

The pickup veered to the left. A sports-mobile, about to pass, horned viciously and zoomed past, sparks from its after-jets cascading onto the pickup's windshield.

"Back, Maria! Turn the wheel!"

"The steering is gone!"

"Brakes, Maria, brakes!"

A frantic, hollow thumping downward of Maria's foot. "There are no brakes!"

Silently, like a weary gull, the car eased off the jetway. It shook once as in a death rattle and nosed into a shuddering stop in a drainage ditch. The Scarlet Throne wavered on its slanted perch, an uncertain pendulum, then toppled over the side of the truck. With a great trembling and a wrenching, the Throne crashed into a hundred pieces. . . .

\* \* \*

They stood in silence. Esteban's fists were no longer

clenched. Deep within him there was a quivering like that of a small boy suppressing tears. He stared vacantly at the ground.

Maria stood very close to him.

"Esteban."

"*¿Sí?*"

"I think I understand you now."

He raised his eyes to hers. "Do you?"

"I think you did what had to be done, and because you did, you are not defeated. You have won."

"I did not say the words that should have been said."

"You *did* say them. You said them to the people who are most important—our children. Maybe they will remember what you said and did and, one day, understand."

Esteban shook his head. "It is not enough."

"But it is late, and I'm cold. The Throne is broken. Tomorrow we get our friends to help us with the pickup. Tomorrow, not now."

He thought. The wind was cool on his hot face. His moist shirt, beneath the armpits, became almost icy. The setting sun was a thin red line dissolving into the dark, tree-fringed line of a mountain.

"Maria!"

"*¿Sí?*"

"We have a spare tire."

"*¿Sí?*"

"We have five strong sons who can push the pickup."

"Si."

"We have an emergency brake to stop the car when it should stop."

"I had forgotten."

"We have a hammer and nails, and the Throne can be rebuilt. Hah! My children, listen! Listen to your father, Esteban Hernandez!"

THEY were shadows now, black blobs moving silently in the darkness. From pickup to fence, over and across objects whose identities were blackened and erased by the night. Occasionally there were dusky faces skittering across areas of light, and small bodies with arms locked about awkward burdens. Swift and silent.

"Papá. The watchman—at the fence."

"Then down! In the shadows!"

There was a humming from the laboratories flanking the take off area, steady, obscuring the night sounds of wind and cricket and trembling leaf. Good, thought Esteban. There was the periodic swish and roar of traffic on the jetway. That, too, was good.

Now and then, ever so softly, there was a thumping as of a hammer pounding on cloth-deadened wood.

"The watchman is coming!"

"Shhhhhhhhh!"

A waiting, then, again, a scrambling and a thumping.

At last it was done.

They stood back, catching their breath, Esteban and Maria, Tomás and Santos, Alfonso and Frank, Rose and Marguerite, Conchita and Joey.

"I can't see," whined Joey.

"But we know it's there," whispered Esteban. "The Throne is there, just as it was this morning in the backyard of Esteban Hernandez—except there is no hole in the ground here. And if the wind is not too strong and the nails too rusty, the Throne will be here tomorrow morning."

Maria murmured, "And all who come here to watch the take-off will see the Throne and the rocket, together. And tonight we will call the son of José Alvarez who will come from his newspaper and take pictures so that all the world can see."

"I can't see the sign," complained Joey.

"Look close," said Esteban. "You can see it by the other sign—the one that says 'Home of the Astra.'" He squinted hard at the white-lettered, night-shrouded words:

THE SCARLET THRONE: Dedicated this 23rd day of June, 1981, to Serve Esteban Hernandez and his People.

He turned, and his foot kicked a small bundle of booklets that the uniformed girls had been giving out. He smiled.

"My good children, take the booklets. Fill your pockets."

Maria sounded puzzled. "You will study about the rocket and Saturn and Pluto?"

"Yes, we will keep some book-

lets to study. The others—well, we have to build a new Throne and collect the things that go into it. The paper from the booklets is softer than paper from the catalog, *si?*"

"*Si,*" said Maria, smiling.

"Yippee!" cried Alfonso.

"*Viva!*" shrilled Joey.

THE END

#### THE MOUTHS OF ALL MEN

(Continued from page 54)

put his signature beside Uvarov's, he slipped the ring back onto his finger.

The buzzer sounded, twice. "Two more orbits before reentry begins," said Cotterill.

They looked at each other, briefly afraid, and then relaxed to enjoy the millenium. They talked of mountains, and some rivers, and green trees, and told tales of beautiful women and laughing children, and confessed that they were glad politics had passed from human affairs. They said things they had always wanted to say but had never found anyone to say them to. And so man passed his time of peace.

The buzzer sounded the one-orbit warning. Red and green lights began to flash.

"My dear friend," said Cotterill, and he took the carmined hand of the Russian in his own bloody one.

Uvarov pulled Cotterill to him and embraced him. "It has been a good trip," he said. "We have celebrated the peace well."

They returned to their constraint couches. Through the narrow doorway, each could see the other. Because of the way the satellites by chance had mated, Cotterill would have to do what had to be done.

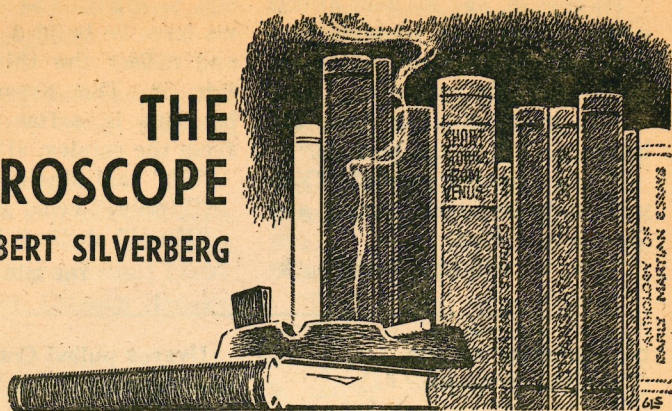
The reentry sequence began. Left to its automatic perfection, for man was a good mechanic, it would land them safely at a predetermined spot unknown in advance to either of them. But Cotterill activated the emergency control, and twisted the sequencing timer without reference to meaning. He waved to Uvarov. The Russian smiled back.

The double satellite dropped into an ever sharper trajectory, and shortly fell like a glowing bullet almost, but not quite, all the way down before it ceased to exist.

THE END

# THE SPECTROSCOPE

By ROBERT SILVERBERG



*Prince of Peril*, by Otis Adelbert Kline. 174 pages. Ace Books, 40¢.

The boom in Edgar Rice Burroughs paperbacks has been one of the most astonishing publishing developments of recent years. Dozens of Burroughs novels have appeared on the newsstands, and evidently are being bought by the hundreds of thousands. I find this particularly incredible, since most of the stuff strikes me as unmitigated trash, subliterate claptrap hardly worth the time of children. This is, I know, a minority opinion, but so be it: perhaps there are virtues in E.R.B.'s alleged science fiction that I'm unable to perceive.

Ace Books, which boasts some thirty-plus Burroughs titles on its list, including the lucrative Tarzan stories, is not content to publish *The Master* alone, but

has trotted out Otis Adelbert Kline, a Burroughs imitator who laboriously copied the Burroughs style in a series of pulp novels some thirty years ago. This one was a serial in *Argosy* in 1930. I confess an inability to read all the way through it, but it seems like a perfectly good imitation to me. Those who are connoisseurs of this sort of stuff tell me that Kline is much less competent than Burroughs in the genre, but the sections of this that I read seemed every bit as silly, as creaky, and as wearisome as anything Burroughs ever produced. The cover painting, by Roy Krenkel, is lovely, though.

If the Burroughs boom has given rise to such side-ventures as this, by the way, why has no paperback publisher brought out Robert E. Howard's Conan

books? *There* is the real thing—action and adventure, blood and gore, and intellectual stimulation besides. Ace did a lone Conan book a decade ago. How about the rest of the series now?

**The Cave Girl**, by *Edgar Rice Burroughs*. 224 pages. Ace Books, 40¢.

Here we have Burroughs himself, accept no imitations. The item at hand strikes me as even more lamentable, if possible, than the usual Burroughs product. Instead of the noble Tarzan or the valiant John Carter, we are asked to accept as protagonist a timid, skinny, pedantic young Bostonian named Waldo Emerson Smith-Jones, who visits the South Seas for his health, gets stranded on an island of cave men, and involves himself with a lovely, voluptuous cave wench named Nadara. In due time, of course, Our Hero transcends his bookishness and the 97-pound weakling becomes the chief of a caveman band. Or so says the jacket blurb; I couldn't last that long.

The writing is unbelievably crude, the plot is unbearably silly, and the characters are faceless puppets or hopeless stereotypes. Yet this did not prevent some magazine from serializing it in the long ago, nor Burroughs himself from peddling a hard-cover version once upon a time,

nor Dell Books from putting out a paperback reprint around fifteen years ago, nor Ace from re-issuing it now. And no doubt the Ace edition will be in its third printing by the time this review is published. It is to grieve.

**Future Imperfect**, by *James Gunn*. 137 pages. Bantam Books, 40¢.

James Gunn was one of the bumper crop of talented new writers who took up science fiction during the boom years of the early 1950's. He doesn't seem to be writing much s-f these days, and this book is a collection of magazine stories published between 1952 and 1958.

It doesn't represent Gunn at his best. He skimmed the cream of his output for a couple of earlier story collections, and what we have here are the leftovers. Pretty good leftovers at that, most of them—but too many of them are marred by a kind of cuteness that makes them no more palatable than a tub of whipped cream. The worst offenders are stories like "Tsylana" and "Little Orphan Android"—slick, empty, foolish yarns that were all too obviously put together to please the taste of a magazine editor who liked to print that sort of stuff. A third one, "Every Day is Christmas," follows the same formula, but didn't even click at the intended

market. I have an idea that Gunn turned these out with grim, dogged effort, perhaps to finance a new buggy for the baby or a new station wagon for the Mrs. There isn't a writer around who hasn't deliberately tailored stories to a market, myself included—but it's questionable going to revive such jobs in a story collection.

Some of the others here show Gunn's abilities better. Sly and sardonic stories like "The Stilled Patter" and "Feeding Time" provide a few moments of somber fun, while "Survival Policy" is first-rate farce. It's a lightweight, agreeable book—hammock reading, nothing more. It would be pleasant to see James Gunn return and devote his considerable talents to s-f again. His novel, *This Fortress World*, his "hedonics" stories, and some of his long magazine novelets were really memorable. Nothing in *Future Imperfect* merits that word.

**Sturgeon In Orbit**, by Theodore Sturgeon. 159 pages. Pyramid Books, 40¢.

This is the sixth or seventh collection of Ted Sturgeon's short stories to appear—perhaps the eighth or ninth. And though Sturgeon has been writing s-f about a quarter of a century now, he has not been particularly prolific except in one blazing

burst early in the 1950's. One might think that he, too, had skimmed off the cream of his output long ago. He hasn't. This newest short story collection, containing stories published between 1951 and 1955, is well worth buying.

None of these five yarns hits the poetic heights of some of Sturgeon's better-known stories of the last decade. Yet four of the five have solid virtues of a more prosaic kind; where they lack Sturgeon's great emotion-stirring power, they also lack what seem to me some of his excesses as well, the slides into overwriting, sentimentality, or garrulity. Coming from the lesser pulps of a bygone era of science fiction, they display compelling narrative drive, strong characterization, and the special Sturgeon magic that shows up even in his weakest efforts.

One of the five is negligible—"The Heart," from Ray Palmer's *Other Worlds*, published in 1955 but written at the start of Sturgeon's career. (It shows it.) Two of the others originated in Ziff-Davis magazines; "Extrapolation" ran in *Fantastic* in 1953 under the title of "Beware the Fury," and "Make Room for Me" first saw print in the defunct *Fantastic Adventures* of the pulp era in 1951. "Extrapolation" is a conventional enough story in theme, hard-driving louse of a

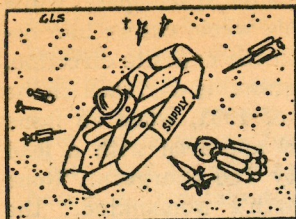
spaceman who becomes a hero in spite of himself, but Sturgeon tackles the story as though it had never been written before, and gives it life and vigor. "Make Room for Me" is another oldie—the one about the writer having trouble getting his book written—but Sturgeon has hooked into it his own particular obsessive theme, that of the melding of individual minds to form a greater whole. The result is a formula yarn of sorts that takes on meaning as a kind of commentary on Sturgeon's great novel, *More Than Human*. A double formula, that is: the pulp formula and Sturgeon's own familiar synthesis-of-minds theme, which eventually became a formula for him as he wrung it dry.

Another, and better, story in the book shows Sturgeon riding the same hobby-horse even more explicitly. This is "The Wages of Synergy," from the late and still lamented pulp magazine, *Startling Stories*. This one is closer in feel and tone to Sturgeon's top-level products; unabashedly he is still digging into merged minds here, in a fast-paced job.

The final item in the book is the real revelation of Sturgeon's reservoir of story-telling skill. The title is—actually and literally—"The Incubi of Parallel X," and it appeared in that pioneer of slam-bang science fiction, *Planet Stories*. *Planet* specialized

in implausible space-opera, while Sturgeon's whole career had developed in the opposite direction. It was a stunning day, then, in the summer of 1951, when an issue of *Planet* appeared with a lead novelet by Ted Sturgeon. "Gone were Earth's womankind," the blurb declared. "The Ffanx-blasted planet had been wrung of the young, the beautiful. Only Garth knew the gateway to the prison-world—a world of 70-foot man-stealing Giantesses."

And Sturgeon obligingly strung together every *Planet Stories* cliché in the repertoire, the parallel worlds and the conquered Earth and the rugged hero and the great purple wimmen and the sinister aliens, and made it all make sense. He ventured to bring some of his own advanced literary techniques to the task, quietly doing entire passages in anapests when it pleased him, looking inside the clichés for the human truth within them, and otherwise going beyond the call of penny-a-word duty. Any reader of science fiction will devour the story as what seems, on the surface, to be an unsophisticated action opus. Science fiction writers are likely to read it in dismay and envy as well as pleasure, since it's a flabbergasting demonstration of what a gifted craftsman can do with science fiction's most elementary form.



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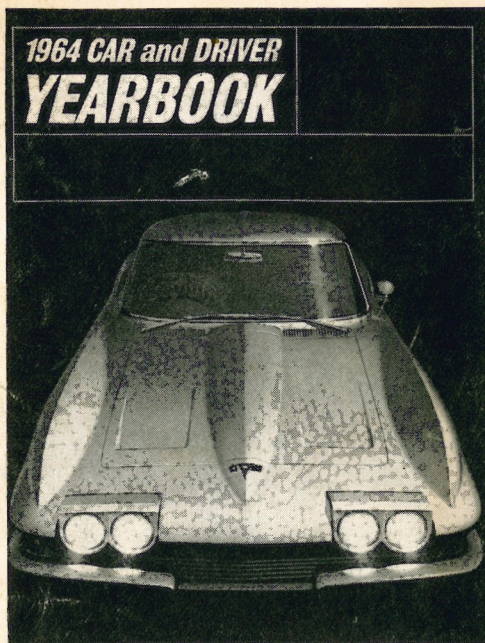
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