

PDC

THE MAGAZINE OF
Fantasy AND



Science Fiction

JULY

50¢

**ROBERT BLOCH
KEITH LAUMER
JACK VANCE
RON GOULART
ISAAC ASIMOV**



Chasley Bonepfeil

**"The best anthology
to be published in any year.
A must!"** LIBRARY JOURNAL

THESSE superb stories emphasize the science in science fiction—each pivoting around a particular science or technology.

Isaac Asimov . . . in a chilling little piece on physics and extraterrestrial life.

Robert Heinlein . . . who offers a mathematically perfect story about a nice, crooked, fourth-dimension house.

Cyril Kornbluth . . . predicts M.D.'s of the future in a fable that will never be made into a network television series.

Julian Huxley . . . spins a timely and timeless adventure in molecular biology called the "Tissue-Culture King."

Robert Silverberg . . . gives an enlightening cram course in Voltusian archeology.

Arthur C. Clarke . . . investigates the astounding capacity of the human body to withstand almost unlimited physiological pressure.

. . . and many more. Fascinating introductions by Mr. Clarke on the history, significance and/or prophetic accuracy of each story.

Time probe

THE SCIENCES IN SCIENCE FICTION

Selected and with an Introduction by

Arthur C. Clarke

\$4.95, now at your bookstore

DELACORTE PRESS



Fantasy and Science Fiction

JULY

Including Venture Science Fiction

NOVELETS

Founder's Day	KEITH LAUMER	5
Brain Bank	ARDREY MARSHALL	47
The Manse of Iucounu	JACK VANCE	102

SHORT STORIES

The Plot Is the Thing	ROBERT BLOCH	26
Experiment in Autobiography	RON GOULART	38
The Age of Invention	NORMAN SPINRAD	78
Revolt of the Potato Picker	HERB LEHRMAN	94

FEATURES

Books	JUDITH MERRIL	32
Cartoon	GAHAN WILSON	37
Man in the Sea	THEODORE L. THOMAS	76
Science: Balancing the Books	ISAAC ASIMOV	83
F&SF Marketplace		129

Cover by Chesley Bonestell (see page 77)

Joseph W. Ferman, PUBLISHER

Ted White, ASSISTANT EDITOR

Judith Merril, BOOK EDITOR

Edward L. Ferman, EDITOR

Isaac Asimov, SCIENCE EDITOR

Robert P. Mills, CONSULTING EDITOR

Dale Beardale, CIRCULATION MANAGER

The Magazine of Fantasy and Science Fiction, Volume 31, No. 1, Whole No. 182, July 1966. Published monthly by Mercury Press, Inc., at 50¢ a copy. Annual subscription \$5.00; \$5.50 in Canada and the Pan American Union, \$6.00 in all other countries. Publication office, 10 Ferry Street, Concord, N. H. 03302. Editorial and general mail should be sent to 347 East 53rd St., New York, N. Y. 10022. Second Class postage paid at Concord, N. H. Printed in U.S.A. © 1966 by Mercury Press, Inc. All rights including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes; the Publisher assumes no responsibility for return of unsolicited manuscripts.

Gus Addison was a cipher. He held a meaningless job in an overcrowded world; lived in a "home" which had barely the floor space for his mother, father, Uncle Fred and his slutty wife, and Gus's brother. He lived on a dream. It wasn't complicated, or very idealistic: he wanted escape and an even chance. "You'll get just one thing on Alpha Three: an even chance." They told him that, and he believed it, and he went. In FOUNDER'S DAY, Keith Laumer returns to these pages with a compelling story of colonization in the future.

FOUNDER'S DAY

by Keith Laumer

THE GIRL SAID "NO." SHE SHOOK her head, turned her ice-chip blue eyes back to the programming console that almost filled her work cubicle. "Have some sense, Gus."

"We could live with my family for a while—"

"You're already one over legal. And if you think I'd crowd in with that whole bunch—"

"Only until I get my next step-increase!"

Her fingers were already flickering over the keys. "See *my* side, Gus. Mel Fundy's offered me a five year contract—with an option."

"Contract!"

"It's better than no marriage at all!"

"Marriage! That's just a lousy business proposition!"

"Not so lousy. I'm accepting. It'll mean a class B flat for just the two of us—and class B rations."

"You—and that dried-up . . ." Gus pictured her, with Aronski's crab-claws touching her.

"Better get back to your slot, Gus," she dismissed him. "You've still got a job to hold down."

He turned away. A small, balding man with a large face and a curved back was coming along the two-foot aisle, darting sharp looks into the cubicles. His eyes turned hot when he saw Gus.

"You're docked half a unit, Addison! If I find you out of your po-

sition again, there'll be charges!"

"It won't happen again," Gus muttered. "Ever."

The shift-end buzzer went at eight A. M. Gus pushed along the exit lane into car 98, stood packed in with the other workers while it rocketed along the horizontal track, halting every twelve seconds to discharge passengers, then shot upwards three-quarters of a mile to his flat-level. In the two foot wide corridor, a banner poster showed a Colonization Service Officer looking stern, and the slogan: **FILL YOUR BLOCK QUOTA!** Gus keyed the door and stepped into the familiar odor of Home: a heavy, dirt-sweet smell of human sweat and excrement and sex that seemed to settle over him like an oily patina.

"Augustus," from the food-prep ledge at the far end of the living aisle his mother's collapsed, sagging face caressed him like a damp hand. "I have a surprise for you! Mock giblets and a custard!"

"I'm not hungry."

"Evening, Son." His father's head poked from the study cubicle. "Since you don't care for your custard, mind if I have it? Stomach's been a little fiesty lately." As if to prove it he belched.

Three feet from Gus's face, the curtains of the dressing alcove twitched. Through a gap, a pale, oversized buttock showed. It

moved sensuously, and Gus saw the curve of a full breast, the soft, pink nipple peering like a blind eye past the edge of the curtain. Desire washed up through him like sewage in a plugged man-hole. He turned his eyes away and saw a narrow, rabbit face glaring at him in feeble ferocity from the washing nook.

"What are you staring at, you young—"

"Tell her to keep the curtains shut, Uncle Fred," Gus grated.

"You young degenerate! Your own aunt!"

"Gus didn't do anything," an uncertain voice said behind him. "She's done the same thing to me."

Gus turned to his brother, a spindle-armed, ribby-chested lad with a bad complexion. "Thanks, Len. But they can think what they like. I'm leaving. I just came to say goodbye."

Lenny's mouth opened. "You're . . . going?"

Gus didn't look at Lenny's face. He knew the expression he would see there: admiration, love, dismay. And there was nothing he could give in return.

The silence was broken by a squeak from Mother. "Augustus," she spoke quickly, in a false-bright voice, as though nothing had been said. "I've been thinking, this evening you and your father might go to see Mr. Geyer about a recommendation for Class C testing—"

Father cleared his throat. "Now, Ada, you know we've been all over that—"

"There may have been a change—"

"There's never a change," Gus cut her off harshly. "I'll never get a better job, never get a flat of my own, never get married. There just isn't room."

Father frowned, the corners of his mouth drawing down in an unwittingly comic expression. "Now, see here, Son," he started.

"Never mind," Gus said. "I'll be out of here in a minute, and leave the whole thing to you—custard and all."

"O, God!" Gus saw his mother's face crumple into a red-blotched mask of grief, a repellent expression of weak, smothering, useless mother-love.

Say something to him, George," she whimpered. "He's going—out there!"

"You mean . . ." Father elaborated a frown. "You mean the colonies?"

"Sure, that's what he means," Lenny burst out. "Gus, you're going to Alpha!"

"Catch *me* volunteering for anything," Uncle Fred shook his head. "Stories I've heard . . ."

"Augustus, I've been thinking," Mother began babbling. "We'll leave the whole flat to you, this lovely apartment, and we'll go into Barracks, just visit you here on Sundays, just come and bring you

a nice casserole or soup, you know how fond you are of my lichen soup, and—"

"I've got to go," Gus backed a step.

"After all we've done for you!" Mother keened suddenly. "All the years we've scraped and saved, so we could give you the best of everything . . ."

"Now, Son, better think this over," Father mumbled. "Remember, there's no turning back if you volunteer. You'll never see your home again—or your mother . . ." His voice trailed off. Even to his ears the prospect sounded attractive.

"Good luck, Gus," Lenny caught his hand. "I'll . . . see you."

"Sure, Lenny."

"He's going!" Mother wailed. "Stop him, George!"

Gus looked back at the faces staring at him, tried and failed to summon a twinge of regret at leaving them.

"It isn't fair," Mother moaned. Gus pressed the button and the door slid back.

"Say, if that custard isn't cold," Father was saying as the panel closed behind Gus.

Recruitment Center Number Sixty-one was a white-lit acre of noise and animal warmth and tension and people packed elbow to elbow under the low ceiling with its signs reading CLASS ONE—

SPECIAL and TEST UNITS D-G and PRE-PROCESSING (DEFERRED STATUS) and its painted arrows, cryptic in red and green and black. After an hour's waiting, Gus's head was ringing dizzily.

His turn came. A woman in a tan uniform thrust a plastic tag at him, looking past his left ear.

"Station twenty-five on your left," she intoned. "Move along . . ."

"I'd like to ask some questions," Gus started. The woman flicked her eyes at him; her voice was drowned in the chopping of other voices as the press from behind thrust Gus forward. A thick-shouldered man with reddish hair put his face near Gus's.

"Some mob," he shouted. "Geeze, it's a regular evacuation."

"Yeah," Gus said. "I've heard Alpha was next best to Hell, but it seems to be popular."

"Hah!" the red-head leaned closer. "You know the world population as of Sunday night stat cut-off? Twenty-nine billion plus—and the repro factor says she'll double in twelve hundred and four days. And you know why?" he warmed to his subject. "No politician's going to vote to cut down the vote supply—"

"You—over here," a hand grabbed Gus and thrust him toward a table behind which sat a pale man with thin, wispy hair. He pushed two small punched

cards across. "Sign these."

"First I'd like to ask a few questions," Gus started.

"Sign or get out. Snap it up, Mac."

"I want to know what I'm getting into. What's it like, out on Alpha Three? What kind of contract do I—"

A hand closed on Gus's arm. A man in Ground Corps uniform loomed beside him.

"Trouble, fella?"

"I walked in here voluntarily," Gus threw the hand off. "All I want—"

"We process twenty thousand a day through here, fella. You can see we got no time for special attention. You've seen the broadcasts; you know about New Earth—"

"What assurance have I got—"

"No assurance at all, fella. None at all. Take it or leave it."

"You're holding up the line," the thin-haired man barked. "You want to sign, or you want to go back home . . . ?"

Gus picked up the stylus and signed.

An hour later, aboard a converted cargo-carrier, Gus sat cold and air-sick on a canvas strip seat between the red-headed man, whose name he had learned was Hogan, and a fattish fellow who complained continuously in a tremulous tone:

“. . . give a man time to think. Big step, going out to the colonies at my time of life. Leaving a good job . . .”

“They washed a lot of 'em out on the physical,” Hogan said. “Figures. Tough out on Alpha; why haul freight that can't make it, hah? Costs plenty to lift a man four light years.”

“I thought they took anybody,” Gus said. “I never heard of anyone who volunteered coming back home.”

“I heard they send 'em to labor camps,” Hogan spoke confidentially from the corner of his mouth. “Can't afford to send malcontents back to the hive.”

“Maybe,” Gus said. “All I know is, I passed and I'm going—and I don't want to come back, ever.”

“Yeah,” Hogan nodded. “We made it. To Hell with them other guys.”

“. . . no time to think it over, consider the matter in depth,” the fat man said. “It's not what I'd call fair, not fair at all. . . .”

They debarked on a flat, dusty-tan plain that stretched away to a distant rampart of smoke-blue mountains. Gus resisted an impulse to clutch the railing as he descended the ramp; the open sky made him dizzy. The air was thin, after the pressurized city and the transport's canned air. Gus felt light-headed. He hadn't eaten all day. He looked at his watch, was

astonished to see that it had been less than five hours since he had left the flat.

Uniformed cadremen called orders up and down the line. The irregular ranks of recruits started off, following a dun-colored lead car. After half an hour, Gus's legs ached from the unaccustomed exercise. His breath was like fire in his throat. The car moved steadily ahead, laying a trail of dust across the empty desert.

“Where the Hell we going?” Hogan's voice wheezed beside him. “There's nothing here but this damned desert.”

“Must be Mojave Spaceport.”

“They're trying to kill us,” Hogan complained. “What do you say we fall out, catch some rest?”

Gus thought about dropping back, throwing himself down, resting. He pictured a cadremen coming over, ordering him back.

Back home.

He kept going.

They marched on through the afternoon, with one brief break during which paper trays of grey mush were handed out. Marching, they watched the sun go down like a pour of molten metal. Under the stars, they marched. It was after midnight when a string of lights appeared in the distance. Gus slogged on, no longer conscious of the pain in his feet and legs. When the halt was called on a broad sweep of flood-lit blacktop, he was herded along with the oth-

ers into a barracks that smelled of new plastic and disinfectants. He fell on the narrow bunk pointed out to him, sank down into a deeper sleep than he had ever known.

—And awoke in the pre-dawn chill to the shouts of the non-coms. After a breakfast of brown mush, the recruits were lined up before the barracks and a cadre officer mounted a low platform to address them.

"You men have a lot of questions to ask," he said. His amplified voice echoed across the pavement. "You want to know what you're getting into, what kind of hand-out of jobs or farmland or gold mines you'll get on New Earth." He waited ten seconds while a murmur built up.

"I'll tell you," he said. The murmur stilled.

"You'll get just one thing on Alpha Three: an even chance." The officer stepped down and walked away. The murmur rose to an angry mutter. A non-com took the platform and barked, "That's enough, you Covvs! When the major said an even chance, that meant nobody gets special privileges! Nobody! Maybe some of you were big shots once; forget all that. From now on, it's what you can *do* that counts. Only half of you are going to Alpha. We'll find out which half today. Now . . ." He dictated orders. Gus found him-

self in a group of twenty men tramping out across the pavement toward a tall, open-work structure. A tall, black-haired man marched beside him.

"These boys don't give away much," he said. "A man'd think they had something to hide."

"No talking in ranks!" A wide-faced cadreman with gaps between his teeth barked. "You'll find out all you need to know soon enough; and you won't like it." He leered and moved on. There was no more talking.

At the tower, the men were herded into a large open-sided lift that lurched as it rumbled upward. Gus watched the desert floor sink away, spreading out below like a dirty blanket. He shied as the gate whooshed open beside him at the top.

"Out, you Covvs!" the burly non-com shouted. Nobody moved.

"You," the cadreman's eyes fixed on Gus. "Let's go. You look like a big, tough boy. All it takes is a little guts."

Gus looked out at the railless platform, the four-foot catwalk extending across to a wider platform twenty feet distant. He felt his feet freeze to the car floor.

The non-com shook his head, brushed past Gus, walked halfway across the catwalk and turned.

"Alpha's that way," he jerked his head to indicate the far end of the walk.

Gus took a breath and walked quickly across. Others followed. Three stayed behind, refusing the walk. The non-com gestured.

"Take 'em back!" The car door closed on them. The cadreman faced his charges.

"This scares you," he said. "Sure, it's something new; you never had to do anything like that before. Well, out on Alpha everything'll be new. You Covvs'll have to adapt or die."

"What if somebody fell?" the black-bearded man asked.

"He'd be dead," the non-com said flatly. "That's real rock down there. If you're going to die, it's better to do it here than after the government's wasted the cost of shipping you four lights into space."

After the tower, there was a climb up a tortuous construction of bars and angles, a maze on edge that led to dead ends and impasses that forced the climber to descend, find a new route, while his hands ached and his legs trembled with fatigue. Then there was a water hazard: locked in a large cage suspended over a muddy pond, Gus listened to instructions, held his breath as the cage submerged, rose, dripping, submerged again . . . and again. When the torture ended he was half drowned. Two unconscious men were carried away. Then there was an obstacle course,

with warning signs posted. Several men ignored the signs—or forgot—or lost their balance. They were carried away. Gus stared at one blood-spattered face, unbelieving.

"They can't do this!" Hogan said. "By God, these birds have gone out of their minds! They . . ." He fell silent as the gap-toothed non-com strolled past.

There was a half-hour break while the colonists ate another mush ration; then the day went on. There was a run across a rockstrewn ground where a misstep meant a broken ankle, or worse; a passage through a twisted, eighteen-inch duct where panic could mean entrapment, upside down; a ride in a centrifuge that left Gus dizzy, shaking, soggy with cold sweat. None of the trials were particularly strenuous—or even dangerous, if the subject kept his head and followed instructions. But steadily the roster of men dwindled. By nightfall, only Gus and eight others were left of the twenty who had started together. Hogan and the black-haired man—Franz—were among them.

"Haven't you caught on to what's going on here yet?" Hogan whispered hoarsely to Gus as the survivors tramped back toward the barracks area. "I heard about this kind of place. They brought us out here to do away with us. The whole deal—free trip to a new planet, the whole colonization

program—it's a phoney, a cover-up for killing off everybody who's not satisfied with things."

"You're nuts," Franz said.

"Yeah? You've heard the talk about euthanasia . . ."

"A little gas in the hive would be easier," Gus said.

"That pond! If I wouldn't of seen it, I'd of called the man a liar told me about it!"

"Sure, it's a screwy set-up," Franz conceded. "But this is a crash program. They had to improvise. . . ."

A murmuring sound had grown unnoticed in the distance. Now, as it swelled, Gus thought of distant thunder, and his imagination pictured cool wind, a cloudburst after the misery of the day's heat.

"Look!" Men were pointing. A flickering white star at zenith grew visibly brighter, and the sound grew with it. The rumble rolled across the plain, and the light brightened into a glittering play of fire at the end of a trail of luminosity.

"Stand fast!" the non-coms shouted as the ranks broke. A jet plane thundered across from the east, shot upward, dwindling toward the descending ship, which grew, waxing like a moon, as a hot wind sprang up, blowing outward from the landing point ten miles distant. A glint of high sunlight showed on the flank of the great vessel. It sank gently on its pillar

of fire, dropped again into darkness, a moving tower of lights, sliding down to settle in its bed of roiling, fiery cloud. Slowly, the bellow of the titanic engines died, the glare faded. Echoes washed back and forth across the plain.

"Starship!" the words ran through the ranks. Gus felt his heart begin to thud in his chest. Starship!

There was no sleep that night. "You'll get plenty from now on," the cadreman told the recruits, as they formed up into double lines leading to a white-painted building that gleamed pale in the polyarcs. It seemed to Gus that the plain was filled with men, shuffling toward the lighted doorways. Hours passed before he reached the building. He blinked in the greenish glare of the long, antiseptically bare room. Teams of surgically masked men and women worked over rows of tables.

"Strip and get on the board," a voice chanted. Technicians closed in around Gus. He backed, gripped by a sudden panic.

"Wait—"

Hands caught him. He fought, but cursing men forced him back. Hyposprays jetted icy cold against his arms. Questions clamored in his brain but before he could form them into words he felt himself sinking down into the fleecy softness of sleep. . . .

Someone was talking urgently.

The voice had been going on for a long time, he knew, but now it began to penetrate:

“. . . you understand? Come on, Covv, wake up!”

Gus tried to speak, said “Awwrrr. . .”

“Come on, on your feet!”

Gus forced his eyes open. It was a different face that bent over him, not one of the technicians. A half-familiar face, except for the half-inch beard and hollow cheeks.

“Sergeant . . . Berg . . .” Gus got out.

“That’s right, Covv, come on, let’s move, there’s work to be done.”

“Wha’ went wrong . . . ?”

“Hah? What didn’t go wrong? Hull damage, mutiny—but that’s not for you to worry about, Covv. We’re ten hours out; you’ve had your sleep—”

“Ten hours . . . from Earth?”

“Hah? From Alpha three, Covv! Eighteen hundred and four-teen days out of Terra.”

Gus rocked as though he had been struck. Almost . . . five years.

“We’re almost there,” he said. Berg was urging him to his feet.

“That’s right. And you’ve been tapped for ship’s complement—you and a few other Covvs—to help out during approach. Coolie labor. Follow me.”

Staggering a little, Gus trailed the non-com along a tight grey

corridor, green-lit by a glare-strip running along the low ceiling. Passing an open door, he caught a glimpse of a wrecked wall, sheet plastic partitioning bulging out of line, broken pipes and tangled wires, a scatter of debris.

“What happened?” he asked.

“Never mind,” Berg growled. “You’re just a dumb Covv. Stay that way.”

They rode a lift up, walked along another corridor, came into the Christmas tree brilliance of the bridge. Silent, harried-looking men in rumpled tan peered worriedly into screens and instrument faces. Officers muttered together; technicians chanted into vocoders. A young-looking officer with short blond hair gestured to Berg.

“This is the last of ’em, sir,” the non-com said.

“I’ll use him as a messenger. No communications with Sections aft of station Twenty-eight now. The tub’s coming apart.”

“Stand by here,” Berg told Gus and went away.

“Lieutenant, take over on six,” a guttural voice called. The blond Lieutenant moved to a gimbaled seat before a screen that showed a vivid crescent against velvet black. A moon was visible at the edge of the screen, a tiny blob of greenish-white. No stars showed; the sensitivity of the screen had dimmed in response to the blaze of the near-by sun.

Gus moved back against the

wall. For the next hour he stood there, forgotten, watching the image of the planet grow on the screens as the weary officers worked over the maze of controls that swept in a twenty-foot horse-shoe around the compartment.

“. . . we're not going to try it —not while I'm on the bridge,” the words caught Gus's attention. A lean, hawk-faced officer tossed papers onto the floor. “We'll have to divert!”

“You're refusing to carry out my instructions?” the squat, white-haired man who Gus knew as the captain raised his voice. “You press me too far, Leone—”

“I'll put her down for you on Planet Four,” The First Officer shouted him down. “That's the best I can do!”

The captain cursed the tall man. Other voices joined in the dispute. In the end the Captain bellowed his capitulation:

“Planet Four, then, Leone! And there'll be charges filed, I guarantee you that!”

“File and be damned!”

The argument went on. Pressed back against the wall, Gus watched as the crescent swelled, grew to fill the screen, became a curve of dusty-lighted horizon, then a hazy plain dotted with the tiny white flecks of clouds. Faint, eerie whistlings started up, climbed the scale; buffeting started. The men on the bridge had forgotten their differences now.

Crisp commands and curt acknowledgements were the only words spoken.

Under Gus, the deck bucked and hammered. He went down, held onto a stanchion as the shaking grew, the scream of air became a frantic tornado—

Then, quite suddenly, the motion smoothed out as a new thunder vibrated through the deck: the roar of the engines waking to life.

Minutes crawled past while the Niagara-rumble went on and on. Then a shock slammed the deck, sent Gus sprawling. Half-dazed, he got to his feet, saw the officers swinging from their places, whooping, slapping each other's backs. The captain hustled past, leaving the bridge. The big General Display screen showed a stretch of dull grey-green hills under a watery sky.

“What the devil are you doing here?” a voice cracked at Gus like a whip. It was First Officer Leone. “Get off the bridge, you bloody Covv!”

“Sir,” Sergeant Berg said, coming up, “Captain's orders—”

“Damn the captain! Damn the lot of you,” he waved an arm to include everyone on the bridge. “Reservists! The bunch of you wouldn't make a wart on a regular officer's rump!”

Gus made his way alone back down to the level where he had been brought out of Coldsleep. A cadreman greeted him with a

curse.

"Where the Hell have you been, Covv? You're on the defrost detail. Get aft and report to Hensley in the meat room—and don't get lost!"

"I wasn't lost," Gus said, returning the non-com's glare. "But I think a fellow named Leone was."

"Ahhh . . ." the non-com gave him terse directions. He followed them to a narrow, high-aisled chamber, bright-lit, frosty. A bow-legged NCO waddled up to him, pointed to a rack of heavy parkas, assigned him to a crew. Gus watched as they undogged a thick, foot-and-a-half square door, drew out a slab on which the frost-covered body of a man lay under a thin plastic membrane.

"Automatics are out," the foreman explained. "We got to unload these Covvs by hand—what's left of 'em."

"What do you mean?"

"We took a four-ton rock through the hull, about fifty hours ago. Lost a bunch of officers and some crew—and before Leone got around to checking, we lost a lot of Covvs. Splinter right through the master panel." The man lifted the plastic, which peeled away from the waxy flesh with a crinkling sound. "Spoiled, you might say—like this one."

Gus looked at the drawn, hollow face, the glint of yellowish teeth behind the grey lips. The

plastic dropped back and the crew moved on to the next door.

In the next five hours, Gus saw twenty-one more corpses. One hundred and forty-one presumably intact colonists were rolled into the revival room. Gus caught glimpses of the gagging, shivering men as they responded to the efforts of the Med crews.

"It ain't easy to die and come to life again," the bandy-legged corporal conceded, watching as a man retched and bucked against the hold-down straps.

The work went on. The horror had gone out of it now; it was simply monotonous, hard, bone-chilling work. Gus had learned to spot the symptoms of tragedy early: a bulge of frost around a door invariably meant a dead man inside. The trickle of life processes of a living Coldsleep subject generated sufficient heat to prevent frosting inside the capsule.

There was the tell-tale trace on the next door. Gus opened it, tugged to break the ice-seal, slid the tray out. Gus leaned close, his attention caught by something in the face under the ice. He stripped the sheet back from the body, felt an icy shock that locked his breath in his throat.

The face was that of his younger brother, Lenny.

"Tough," the corporal said, flicking an eye curiously at Gus. "According to the tag, he was in

the draft next to yours; must have come into Mojave the day after you. We was five weeks loading"

Gus thought of the screening trials, the torture of the dunking cage, the walk across emptiness on the narrow catwalk. And Lenny, trying to follow him, going through all of it, and dying like this.

"You said by the time Leone got around to checking, some of the colonists were dead," Gus said in a ragged tone. "What did you mean?"

"Forget it, Covv. Let's get back to work. We got the live ones to think about." The corporal put a hand on the small pistol strapped to his hip. "We're not out of the woods yet—any of us."

The ship had been on the ground twenty-seven hours when Gus's turn came to walk down the landing ramp and out under the chill sky of a new world. A light, misty rain was falling. There was a sour smell of burnt vegetation and over it a hint of green, growing things, alien but fresh, not unpleasant.

The charred ground was a churn of black mud trampled by the thousands of men who had debarked ahead of him. They were lined up in irregular ranks, row after row, that stretched out of sight over a rise of ground. Gus's group was formed up and marched

off toward the far end of the bivouac area.

"This don't look like much to me," Hogan said. His red hair looked wilder than ever. Like the other colonists, he had acquired an inch of beard while in Cold-sleep.

"This isn't where we were supposed to land," Gus told him. "We're on the wrong planet."

"Hah? How do you know?"

Gus told him what he had heard during his stay on the bridge.

"Cripes!" Hogan waved a hand at the treeless, rolling tundra. "The wrong planet! That means there ain't no colony here, no housing, no nothing!"

"As the man said," Franz put in, "we're on our own. We can carve our own town out of this—"

"Yeah? With no trees, no lumber, no running water—"

"Sure, there's running water. It's running down my neck right now."

"We been had!" Hogan burst out. "This ain't the deal I signed on for!"

"You signed like the rest of us, no questions asked."

"Yeah, but—"

"Don't say it," Franz said. "You'll break my heart."

"No shelter," Hogan said an hour later. "I heard the best food went to us colonists. Where is it?"

"Wait until the ship's unload-

ed," Franz said.

"Nothing's come off that tub yet but us Covvs," Hogan rubbed his hands together for warmth, looking toward the grim tower of the ship. The damage done to the hull by the meteorite was clearly visible as a pock mark near the upper end.

"They're probably still busy doing emergency repairs," Franz said.

"Don't look like a little hole like that could of done all that damage," Hogan said.

"That ship's nearly as complicated as a human body," a man standing by said. "Poking a hole in it's like shooting a hole in you."

"Hey—look there!" Hogan pointed. A new group of parka-clad colonists was filing over the brow of the hill.

"Women!" Franz whispered.

"Females, by God!" Hogan burst out.

"It figures," someone said. "You can't make a colony without women!"

"Boys, they kept that one up their sleeve!"

The men watched as squad after squad of female colonists toiled up the hill, forming up beyond the men. Then they turned at the sound of car engines. A carryall towing a small trailer came along the line, stopped near Gus. A cadreman jumped down, pulled back the tarp covering the trailer, hauled out a heavy bundle.

"All right, you Covvs," he shouted as the car pulled away. "You're going to dig in. File up here and draw shovels!"

"Shovels? Is he kidding?" Hogan looked around at the others.

"Dig for what?" someone called.

"Shelter," the corporal barked. "Unless you want to sleep out in the open."

"What about our pre-fabs?"

"Yeah—and our rations!"

"There's power equipment aboard the ship! If there's digging to be done, by God, let's use it!"

The corporal unlimbered his foot-long club. "I told you Covvs," he started, and his voice was drowned by the clamor as the men closed in on him.

"We want food!"

"To hell with digging!"

"When you going to hand out the women?"

"I . . . I'll go see," the non-com backed away, then turned, went off quickly down-slope. Voices were being raised all across the hill now. Gus saw other cadremen withdrawing, one with blood on his face and minus his cap. The uproar grew. A carryall raced up from the ship, took cadremen aboard. Clubs swung at colonists who gave chase.

"After 'em!" Hogan yelled. Gus grabbed his arm. "Stop, you damned fool! This is a mistake!"

"It's time we started getting a fair deal around here! We're not convicts, by God!"

"The power's all theirs," Gus said. "This won't help us!"

"We outnumber them a hundred to one," Hogan crowed. "Look at 'em run! I guess the digging party's off!" He shook off Gus' grip, looked toward the women. "Boys, let's pay a call. Them little ladies look lonesome—"

Gus shoved the red-head back. "Start that, and we're done for! Can't you see the spot we're in?"

"What spot?" Hogan began to bluster. "We showed 'em they can't push us around!"

"They're loading up, going back aboard." Gus pointed. Heads turned to watch the last of the cars wheeling up the ramp.

"They're scared of us——"

"We jumped them, forced their hand——"

"Yeah?" Hogan frowned ferociously. "So they ran from us."

"You damned fool," Gus said wearily. "Suppose they don't come back out?"

"They can't do this to us," Hogan whined for the fortieth time. The suns—both of them—had set hours before. The rain had turned to sleet that froze on the springy turf and on the men's clothing.

"It must be five below," Franz said. "You think they'll leave us out here to freeze, Gus?"

"I don't know."

"They're in there, eating our rations, sleeping in soft beds," Ho-

gan growled. "The dirty blood-suckers!"

"Can't much blame 'em," Franz said. "With bone-heads like you roughing 'em up. You expect 'em to come out and let you finish the job?"

"They can't get away with it!"

"They can get away with anything they want to," Gus said. "Nobody back on Earth knows what's going on out here. It takes ten years to ask a question and get an answer. And in ten years the population will have tripled on Earth. They'll have other things to think about than us. We're expendable."

A ripple of talk was passing through the ranks of men squatting on the exposed hillside under the relentless sleet. Dark figures were advancing from the direction of the women's area.

"It's the girls," Hogan said. "They want company."

"Leave them alone, Hogan," Gus said. "Let's see what they want."

The leader of the women's delegation was a strong-looking blonde in her late twenties, muffled in an oversized parka. She planted herself in front of the men. They closed in, gaping.

"Who's in charge over here?" she demanded.

"Nobody, Baby," Hogan started. "It's every man for himself . . ." He reached out with a

meaty paw. The girl brushed it aside. "Pass that for now, Porky," she said briskly. "We've got important things to talk about, like not freezing to death. What are you fellows doing about it?"

"Not a damn thing, Honey. What can we do?" Hogan jerked a thumb toward the lights of the ship. "Those lousy crots have cut us off—"

"I saw what happened; you damned fools started a riot. I don't blame them for pulling out. But what are you going to do about it *now*? You going to let your women freeze?"

"Our women?"

"Whose women you think we are, Porky? There's even one for you—if you can keep her alive."

"We've got a few shovels," Gus said. "We can dig in. This sod ought to be good enough to make huts of."

"Dig holes for over nine thousand people, with a couple dozen shovels?" Hogan jeered. "Are you nuts—"

A crackle like near-by lightning sounded. "Attention-on," a vast voice boomed across the bivouac. "This is Captain Hariss-is . . ." Floodlights sprang into life at the base of the ship.

"You people are guilty of mutiny-any," the great voice rolled. "I'd be justified in whatever measures I chose to take at this point. Including leaving you to suffer the consequences of your own

actions-shuns." There was a pause to allow the thought to sink in.

"However, as it happens, I have repairs to undertake-ache. I'm short-handed-dead. Time is important-ant-ant."

"Tough," Hogan growled.

"I want twenty volunteers to aid in the work of preparing my ship for space-ace. In return, I'll see to it that certain supplies are made available to you people-lull."

A mutter went up from the men. "The son of a bitch is holding us up for our own rations!" Hogan yelled.

"At the first sign of disorder, I'll clear a one-mile radius around the ship," the captain's voice boomed out. "I'm offering you mutineers the one chance you'll get-et! I suggest you think it over carefully! I want you to select twenty strong workers and send them forward-herd!"

"Let's rush the crots when they open the ports," Hogan shouted over the surf-noise of the crowd. "We can take the ship and rip those crots limb from limb! There's enough supplies aboard to last us for years! We can live in the ship until a rescue ship gets here!"

Faces were turning toward Hogan. Greedy eyes glistened in half-frozen faces.

"Let's go get 'em!" Hogan yelled. "Let's—"

Gus stepped after him, caught him by the shoulder, spun him

around and hit him square in the mouth with all his strength. Hogan went back and down and lay still.

"I'm volunteering for the work crew," Gus called, and started forward. A path opened to let him through.

Franz walked at Gus's side, leading the little troop of volunteers down the slope to the ship. The big floods bathed them in bluish light. Gus could feel the muscles of his stomach tighten, imagining guns aimed from the open ports. Or maybe it would be a touch of the main drive. . . .

No guns fired. No flame blossomed beyond the gigantic landing jacks rising from the mud. A squad of crewmen met them, searched them for weapons, detailed them off, marched them away. Gus and the blonde woman were escorted to the Power Section, handed over to a bald, grim-faced engineering officer.

"Only two? And one of them a woman? Damn the captain's arrogance! I told the—" He shut himself up, barked at a greasy-handed non-com who gave the newcomers a ration of mush and set them to work disassembling a fire-blackened mechanism.

"What's the rush?" the girl asked the NCO. "Why work all night? We're all tired—you too. How long since you've slept?"

"Too bloody long. But it's Captain's orders."

"What's he doing for the colonists? Has he sent out the food and shelter he promised?"

"How do I know?" the man muttered. "Just stick to the job and can the chatter."

Half an hour later, with the corporal and the engineer busy cursing over a frozen valve at the far end of the room, the girl whispered to Gus, "I think we're being double-crossed."

"Maybe."

"What'll we do?"

"Keep working."

Another hour passed. Abruptly, the engineer threw down the calibrator with which he had been working, stamped out through the outer door.

"Try keeping the corporal occupied for a few minutes," Gus hissed at the girl. She nodded, rose and went over to the corporal.

"I feel a little dizzy, Sugar," she said, and folded against him. Gus went quickly to the door and out into the green-lit corridor.

He emerged in the darkened anteroom outside the bridge.

". . . nine hours at the outside!" a harsh voice was saying. "We lift before then, or we don't lift!"

"I don't trust your calculations, Leone."

"I showed you the fatigue profiles; check them for yourself—but do it fast! The structure is deflecting at the rate of two centimeters

per hour. We'll have major strains in three hours, and buckling in eight—"

"I'll need six hours, minimum, to unload cargo, after the priority one work is out of the way—"

"Forget unloading, Captain. Your first job is to get your ship back, intact!"

"And you with it, eh, Leone?"

"The other officers feel as I do."

"After you've brow-beaten them! What about the colonists? Their equipment, their rations—"

"We can't spare the food," Leone said crisply. "You know what the damage inventory showed. We'll be lucky if we make it ourselves. The Covvs will manage; they'll have to. That's what they're here for, remember?"

"They were slated for an established colony on Three—"

"They can survive on Four. It's chilly, but no worse than plenty of areas on Terra."

"You're a cold-blooded devil, Leone."

"It's what you've got to do. . . ."

Gus stepped back, departed as silently as he had come.

The engineer whirled with an oath as Gus appeared. Gus stepped directly to him, without warning hit him hard in the stomach, hit him again on the jaw as he doubled over. The corporal yelled and jumped, tugging at his gun. He went down hard as the girl threw herself at his legs. Gus knocked

him cold with a blow on the head.

"Let's get out of here!" Gus helped the girl up; her nose was bleeding. He led her into the corridor, headed back toward the loading deck. They had gone fifty yards when a crew of armed men burst from a cross-way and cut them off. It took three of them to hold the blonde girl. Gus saw a club swinging toward his head; then the world burst into a shower of fireworks.

Bright light glared in Gus's face. He was lying on his back on the floor, his hands locked behind him. Across the small room, a tall man in a tan uniform sat at a desk. Gus sat up painfully; at the sound, the man turned. It was the First Officer, Leone. He gave Gus a sardonic look. His eyes were red, his chin unshaven.

"I could have had you shot," he said. "But I wanted to learn a few things first. Speak freely and I may be able to do something for you. Now: who was in on the scheme with you? Are those—" he tilted his head to indicate the planet outside—"poor grubbers planning some sort of attack?"

"I'm on my own," Gus said.

"Come on, man, speak up! You're already deep enough: striking an officer, desertion—"

"I'm not in your army," Gus cut him off. "I want to see the captain, if you haven't eaten him for breakfast."

Leone laughed. "To claim your rights, I suppose."

"Something like that."

"There are no rights," Leone said flatly. "Only necessities."

"Like food and shelter. Those people out there came here expecting a decent chance. You plan to abandon them here—with nothing."

"Ah; so that was what was behind your little dash for freedom." Leone nodded as if pleased. "You need to adjust your thinking, Covv—"

"My name's Addison. Calling us Covvs won't take us off your conscience."

"Wrong on two counts. I have no conscience. As for names, they imply family ties, a place in a social structure. You have none—except what you might have made for yourself, out there." Leone shook his head. "No, 'Covv' it is. It's the role you were born for—you and millions like you." He poured himself a drink from a bottle on the desk, tossed it back with a practiced flip of the wrist.

"There was a time when I wondered at the purpose of it all—man's slow climb up to the present mad carnival of spawning that's turned a planet into nothing more than a surface on which nameless, faceless nonentities breed endlessly, in a doomed effort to convert the entire mass of the world into human flesh. It seemed so pointless. But now I understand." Le-

one smiled crookedly. He was very drunk.

"Ah, you're wondering, but too proud to ask! Proud! Yes, every little unremembered mote of humanity has his share of that fatuous delusion of self-importance! Funny; very funny!" Leone leaned toward Gus, waving the glass in his hand. "Don't you know your function, Covv?" He grinned expectantly. Gus looked at him silently.

"You're a statistic!" Leone poured again, raised the glass in a mock toast. "Nature brings forth millions, that one may survive. And you're one out of the millions."

"Now that you have it all figured out," Gus said, "What are you going to do about us? Those people will freeze out there."

"Perhaps," Leone said carelessly. "Perhaps not. The toughest will survive—if they can. Survive to breed. And in time, devour this world, and jump on to a new star. Meanwhile, it hardly matters what happens to a statistic."

"They were promised an even chance."

"Promises, promises. Death in the end is the only promise, my boy. As for those ciphers out there in the cold—think of them as fish eggs, if that will help you. Spawmed by the million so that one or two can live to spawn in turn. Life goes on—as long as you've got plenty of fish eggs."

"They're not fish-eggs. They're men, and they deserve simple justice—"

"You call justice simple?" Leone leaned forward, almost rolled from his chair before he caught himself. "The most sophisticated concept with which the mind of man deludes itself—and that's the only place it exists: in men's minds. What does the Universe know about justice, Covv? Suns burn, planets whirl, chemicals react. The fox devours the bunny-rabbit with a clear conscience—just the way Alpha Four will devour those poor clots out there." He waved an arm. "And that's as it should be. Nature's way. Survive—or don't survive. It's natural—like an earthquake. It'll kill you without the least ill-will in the world."

"You're not an earthquake," Gus said. "It's you that's holding back the food those men need."

"Don't come whining to me for your lousy justice!" Leone shouted, swaying in this chair. "We were having a well-earned drink in the wardroom when the rock hit! Killed half the officers of this damned tub—killed my friend, my best friend, damn you! After five years, cruise almost over . . . and all for the sake of a load of caviar . . ."

Leone gulped the rest of his drink, threw the glass across the room. "Don't chatter to me about what's fair," he muttered. "It's

what's real that counts." He put his head down on his arms and snored.

It took Gus five minutes to reach the desk, grope in the drawers until he found the electrokey which unlocked the cuffs on his wrists. There was a crew-type coverall in the closet. Gus donned it, added a small hand-gun from a wall-chest. In the passageway, all was silent. Most of the crew were busy, Gus knew. He made his way down to the lower levels, encountered a familiar corridor leading to the Power Section. He passed two men on the way; they hardly glanced at him.

The red-painted inner door to the Power Control Room stood ajar. Gus slipped past it, closed it silently, dogged it down. The engineering officer yelped when Gus poked the gun into his back.

"Quiet," Gus cautioned. He prodded the man along to a parts locker, motioned him inside.

"What do you hope to gain by this, you madman?" The man's red face blazed almost purple. "You're asking to be shot down—"

"So are you. No noise." Gus shut the door and locked it. He went on to the room that housed the control servos. Three technicians worked over a disassembled chassis. They whirled when Gus snapped an order at them. Their hands went up slowly. Gus herded two of them into the parts locker. The third backed away, trembling

and sweating, as Gus pressed the gun to his chest.

"Show me how this set-up works," Gus ordered.

The technician began a confused lecture on the theory of cyclic fusion-fission reactors.

"Skip all that," Gus told him. "Tell me about these controls."

The technician explained. Gus listened, asked questions. After fifteen minutes he indicated a red plastic panel cover.

"That's the damper control unit?"

"That's right."

"Open it up."

"Now, just a minute, fellow," the man said quickly. "You don't know what you're getting into—"

"Do as I said."

"You tamper with that, you can throw the whole core out of balance!"

Gus rammed the gun hard into the man's chest.

"OK, OK," He set to work with fingers that shook.

Gus studied the maze of exposed circuitry. "What happens if you cut those conduits?" he pointed. The technician backed away, shaking his head. "Wait a minute, fellow—"

Gus cuffed the side of his head hard enough to send the man sprawling.

"The whole revert circuit will be thrown on the line! You'll get a feed into the interlock system, and—"

"Put it in English!"

"She'd climb past crit and blow! She'd blow the side of the planet out!"

"What if you just cut that one?" Gus indicated another lead.

The technician shook his head. "Nearly as bad," his voice broke. "She'd run away and the core would begin to heat. She'd run red in an hour, and slag down in three. The gamma count—"

"Any way to stop it, once it starts?"

"Not once you let her climb past critical! You redline her, and we're all finished!"

"Cut that lead," Gus commanded.

"You're out of your mind—" the man launched himself at Gus; he hit him with the gun, sent him reeling. There was a heavy pair of bolt-cutters on the nearby bench. Gus used them to snap through the pencil-thick lead. At once, a bell sounded stridently. Gus tossed the cutters aside, dragged the groaning man to a tool locker; then he went to the wall phone, punched a code from the list beside it.

"Captain, this is one of the fish-eggs," he said. "I think we'd better have a talk about a choice you're going to have to make."

Gus stood with Captain Harris on a hillside a mile from the ship, watching with the others as the spot of dull red grew on the side of the gleaming tower that was

the stricken starship. A sigh went up from the men as a long ripple appeared across the flawless curve of the great hull.

"Broke her back," the captain said tonelessly.

"She'll cool down enough by Spring for us to go abroad and salvage whatever might be of use to the colony. Meanwhile, what we took off her before she got too hot ought to last us."

Harris gave Gus an ice-blue glare that reminded him of a girl left behind on far away Terra. The memory seemed as remote as the planet.

"Yes—you should be able to survive until then—"

"We ought to survive," Gus corrected. "We're all in this together, now."

"When the story of your treachery gets out—"

"It's to your advantage not to let it," Gus interrupted the threat. "Better stick to the story we agreed on, about my lucky hunch and your heroic action, saving as much as you did."

"My officers would tear me apart if they knew I'd come to terms with a mutinous, sabotaging scoundrel!"

"The colonists would rip all of you apart if they knew you'd planned to maroon them."

"I'm still wondering if you'd have made good your threat to blow her apart."

"Either way, you'd have lost.

This way, you have a certain amount of good-will going for you with the colonists. They think you chose to lose the ship rather than abandon them."

"If there'd been any other way. . . ."

A tall figure staggered across toward the two men.

"Cap'n . . ." Leone blurted. "I tol' you—tol' you she'd buckle."

"Yes, you told me, Leone. Go sleep it off."

"Last cruise," Leone muttered, watching the ship as the proud nose visibly leaned as the weakened structure yielded to the massive pressure of gravity. "My retirement, flat of my own, wife . . . all gone, now. Stuck here, on this . . . this cold desert!"

"We'll march south," Gus said. "Maybe we'll find better country."

"I'm not sure we should leave this area," Harris said. "If we're to have any chance of rescue—"

"We're pollen on the wind," Gus said. "Nobody will ever miss us. It's up to us, now; what we do for ourselves. Nobody else cares."

"My authority—"

"Doesn't mean a thing," Gus cut him off. "We're all Covvs together, swimming in the same waters."

"Shark infested waters!"

Gus nodded. "We won't all make it; but some of us will."

Harris seemed to shudder. "How can you be sure?"

"We have a chance," Gus said. "That's all any man can ask for."

There are certainly worse ways to spend a rainy Saturday than to watch a re-run of, say, The Wolf Man, starring Lon Chaney, Jr., Bela Lugosi and Maria Ouspenskaya (right!—the old gypsy fortune teller). We suspected all along that horror films are best consumed in moderation, but not for the horrible reason suggested in the story below. Mr. Bloch is the author of a contemporary horror classic, PSYCHO, and we don't doubt that he knows what he's talking about.

THE PLOT IS THE THING

by Robert Bloch

WHEN THEY BROKE INTO THE apartment, they found her sitting in front of the television set, watching an old movie.

Peggy couldn't understand why they made such a fuss about that. She liked to watch old movies—the Late Show, the Late, Late Show, even the All Night Show. That was really the best, because they generally ran the horror pictures. Peggy tried to explain this to them, but they kept prowling around the apartment, looking at the dust on the furniture and the dirty sheets on the unmade bed. Somebody said there was green mould on the dishes in the sink; it's true she hadn't bothered to wash them for quite a long time, but then she simply hadn't both-

ered to eat for several days, either.

It wasn't as though she didn't have any money; she told them about the bank-accounts. But shopping and cooking and house-keeping was just too much trouble, and besides, she really didn't like going outside and seeing all those *people*. So if she preferred watching TV, that was her business wasn't it?

They just looked at each other and shook their heads and made some phone-calls. And then the ambulance came, and they helped her dress. Helped her? They practically *forced* her, and by the time she realized where they were taking her it was too late.

At first they were very nice to her at the hospital, but they kept

asking those idiotic questions. When she said she had no relatives or friends they wouldn't believe her, and when they checked and found out it was true it only made things worse. Peggy got angry and said she was going home, and it all ended with a hypo in the arm.

There were lots of hypos after that, in in between times this Dr. Crane kept after her. He was one of the heads of staff and at first Peggy liked him, but not when he began to pry.

She tried to explain to him that she'd always been a loner, even before her parents died. And she told him there was no reason for her to work, with all that money. Somehow, he got it out of her about how she used to keep going to the movies, at least one every day, only she liked horror pictures and of course there weren't quite that many, so after while she just watched them on TV. Because it was easier, and you didn't have to go home along dark streets after seeing something frightening. At home she could lock herself in, and as long as she had the television going she didn't feel lonely. Besides, she could watch movies all night, and this helped her insomnia. Sometimes the old pictures were pretty gruesome and this made her nervous, but she felt more nervous when she didn't watch. Because in the movies, no matter how horrible things seemed for the heroine, she was always rescued in the end. And

that was better than the way things generally worked out in real life, wasn't it?

Dr. Crane didn't think so. And he wouldn't let her have any television in her room now, either. He kept talking to Peggy about the need to face reality, and the dangers of retreating into a fantasy world and identifying with frightened heroines. The way he made it sound, you'd think she *wanted* to be menaced, *wanted* to be killed, or even raped.

And when he started all that nonsense about a "nervous disorder" and told her about his plans for treatment, Peggy knew she had to escape. Only she never got a chance. Before she realized it, they had arranged for the lobotomy.

Peggy knew what a lobotomy was, of course. And she was afraid of it, because it meant tampering with the brain. She remembered some mad doctor—Lionel Atwill, or George Zucco?—saying that by tampering with the secrets of the human brain one can change reality. "There are some things we were not meant to know," he had whispered. But that, of course, was in a movie. And Dr. Crane wasn't mad. *She* was the mad one. Or was she? He certainly looked insane—she kept trying to break free after they strapped her down and he came after her—she remembered the way everything gleamed. His eyes, and the long needle. The long needle, probing

into her brain to change reality—

The funny thing was, when she woke up she felt fine. "I'm like a different person, Doctor."

And it was true. No more jitters; she was perfectly calm. And she wanted to eat, and she didn't have insomnia, and she could dress herself and talk to the nurses, even kid around with them. The big thing was that she didn't worry about watching television any more. She could scarcely remember any of those old movies that had disturbed her. Peggy wasn't a bit disturbed now. And even Dr. Crane knew it.

At the end of the second week he was willing to let her go home. They had a little chat, and he complimented her on how well she was doing, asked her about her plans for the future. When Peggy admitted she hadn't figured anything out yet, Dr. Crane suggested she take a trip. She promised to think it over.

But it wasn't until she got back to the apartment that Peggy made up her mind. The place was a mess. The moment she walked in she knew she couldn't stand it. All that dirt and grime and squalor—it was like a movie set, really, with clothes scattered everywhere and dishes piled in the sink. Peggy decided right then and there she'd take a vacation. Around the world, maybe. Why not? She had the money. And it would be interesting to see all the *real* things she'd

seen represented on the screen all these years.

So Peggy dissolved into a travel agency and montaged into shopping and packing and faded out to London.

Strange, she didn't think of it in that way at the time. But looking back, she began to realize that this is the way things seemed to happen. She'd come to a decision, or go somewhere and do something, and all of a sudden she'd find herself in another setting—just like in a movie, where they cut from scene to scene. When she first became aware of it she was a little worried; perhaps she was having blackouts. After all, her brain *had* been tampered with. But there was nothing really alarming about the little mental blanks. In a way they were very convenient, just like in the movies; you don't particularly want to waste time watching the heroine brush her teeth or pack her clothing or put on cosmetics. The plot is the thing. That's what's *real*.

And everything was real, now. No more uncertainty. Peggy could admit to herself that before the operation there had been times when she wasn't quite sure about things; sometimes what she saw on the screen was more convincing than the dull gray fog which seemed to surround her in daily life.

But that was gone, now. Whatever that needle had done, it had managed to pierce the fog. Every-

thing was very clear, very sharp and definite, like good black-and-white camera work. And she herself felt so much more capable and confident. She was well-dressed, well-groomed, attractive again. The extras moved along the streets in an orderly fashion and didn't bother her. And the bit-players spoke their lines crisply, performed their functions, and got out of the scene. Odd that she should think of them that way—they weren't "bit-players" at all; just travel clerks and waiters and stewards and then, at the hotel, bellboys and maids. They seemed to fade in and out of the picture on cue. All smiles, like in the early part of a good horror movie, where at first everything seems bright and cheerful.

Paris was where things started to go wrong. This guide—a sort of Eduardo Cianelli type, in fact he looked to be an almost dead ringer for Cianelli as he was many years ago—was showing her through the Opera House. He happened to mention something about the catacombs, and that rang a bell.

She thought about Erik. That was his name, Erik—The Phantom of the Opera. *He* had lived in the catacombs underneath the Opera House. Of course, it was only a picture, but she thought perhaps the guide would know about it and she mentioned Erik's name as a sort of joke.

That's when the guide turned

pale and began to tremble. And then he ran. Just ran off and left her standing there.

Peggy knew something was wrong, then. The scene just seemed to dissolve—that part didn't worry her, it was just another one of those temporary blackouts she was getting used to—and when Peggy regained awareness, she was in this bookstore asking a clerk about Gaston Leroux.

And this was what frightened her. She remembered distinctly that *The Phantom of the Opera* had been written by Gaston Leroux, but here was this French bookstore clerk telling her there was no such author.

That's what they said when she called the library. No such author—and no such book. Peggy opened her mouth, but the scene was already dissolving . . .

In Germany she rented a car, and she was enjoying the scenery when she came to this burned mill and the ruins of the castle beyond. She knew where she was, of course, but it couldn't be—not until she got out of the car, moved up to the great door, and in the waning sun of twilight, read the engraved legend on the stone. *Frankenstein*.

There was a faint sound from behind the door, a sound of muffled, dragging footsteps, moving closer. Peggy screamed, and ran . . .

Now she knew where she was running to. Perhaps she'd find

safety behind the Iron Curtain. Instead there was another castle, and she heard the howling of a wolf in the distance, saw the bat swoop from the shadows as she fled.

And in an English library in Prague, Peggy searched the volumes of literary biography. There was no listing for Mary Wollstonecraft Shelley, none for Bram Stoker.

Of course not. There wouldn't be, in a *movie* world, because when the characters are real, their "authors" do not exist.

Peggy remembered the way Larry Talbot had changed before her eyes, metamorphizing into the howling wolf. She remembered the sly purr of the Count's voice, saying, "I do not drink—wine". And she shuddered, and longed to be far away from the superstitious peasantry who draped wolfbane outside their windows at night.

She needed the reassurance of sanity in an English-speaking country. She'd go to London, see a doctor immediately.

Then she remembered what was in London. Another werewolf. And Mr. Hyde. And the Ripper . . .

Peggy fled through a fadeout, back to Paris. She found the name of a psychiatrist, made her appointment. She was perfectly prepared to face her problem now, perfectly prepared to face reality.

But she was not prepared to face

the baldheaded little man with the sinister accent and the bulging eyes. She knew him—Dr. Gogol, in *Mad Love*. She also knew Peter Lorre had passed on, knew *Mad Love* was only a movie, made the year she was born. But that was in another country, and besides, the wench was dead.

The wench was dead, but Peggy was alive. "*I am a stranger and afraid, in a world I never made.*" Or had she made this world? She wasn't sure. All she knew was that she had to escape.

Where? It couldn't be Egypt, because that's where *he* would be—the wrinkled, hideous image of the Mummy superimposed itself momentarily. The Orient? What about Fu Manchu?

Back to America, then? Home is where the heart is—but there'd be a knife waiting for that heart when the shower-curtains were ripped aside and the creature of *Psycho* screamed and slashed . . .

Somehow she managed to remember a haven, born in other films. The South Seas—Dorothy Lamour, Jon Hall, the friendly natives in the tropical paradise. There *was* escape.

Peggy boarded the ship in Marseilles. It was a tramp steamer but the cast—crew, rather—was reassuringly small. At first she spent most of her time below deck, huddled in her berth. Oddly enough, it was getting to be like it had been *before*. Before the operation, that

is, before the needle bit into her brain, twisting it, or distorting the world. *Changing reality*, as Lionel Atwill had put it. She should have listened to them—Atwill, Zucco, Basil Rathbone, Edward Van Sloan, John Carradine. They may have been a little mad, but they were good doctors, dedicated scientists. They meant well. "There are some things we were not meant to know."

When they reached the tropics, Peggy felt much better. She regained her appetite, prowled the deck, went into the galley and joked with the Chinese cook. The crew seemed aloof, but they all treated her with the greatest respect. She began to realize she'd done the right thing—this *was* escape. And the warm scent of tropic nights beguiled her. From now on, this would be her life; drifting through nameless, uncharted seas, safe from the role of heroine with all its haunting and horror.

It was hard to believe she'd been so frightened. There were no Phantoms, no Werewolves in this world. Perhaps she didn't need a doctor. She was facing reality, and it was pleasant enough. There were no movies here, no television; her fears were all part of a long-forgotten nightmare.

One evening, after dinner, Peggy returned to her cabin with something nagging at the back of her brain. The Captain had put in one of his infrequent appearances at the table, and he kept looking at her all through the meal. Something about the way he squinted at her was disturbing. Those little pig-eyes of his reminded her of someone. Noah Beery? Stanley Fields?

She kept trying to remember, and at the same time she was dozing off. Dozing off much too quickly. Had her food been drugged?

Peggy tried to sit up. Through the porthole she caught a reeling glimpse of land beyond, but then everything began to whirl and it was too late . . .

When she awoke she was already on the island, and the woolly-headed savages were dragging her through the gate, howling and waving their spears.

They tied her and left her and then Peggy heard the chanting. She looked up and saw the huge shadow. Then she knew where she was and *what it* was, and she screamed.

Even over her own screams she could hear the natives chanting, just one word, over and over again. It sounded like, "Kong".



BOOKS



THIS SEEMS TO BE INTERNATIONAL Brotherhood Month in s-f. In my stack are two editions, one each British and American (slightly different), by Brian Aldiss; the first American edition of a well-established British novelist, John Lymington; a British edition of a previously unpublished novel by American author Charles Harness; and an American edition of a work by an American author, Joseph L. Green—based on a series of novelets written for the British magazine, *New Worlds*.

The big good news is Harness' *THE ROSE*.¹ Some of you will already know that Charles Harness, after too long a silence, has started writing again; two short stories have already been published this year. Some will remember—in particular—"The New Reality" (*Thrilling Wonder Stories*, 1950, and *BEST SCIENCE FICTION STORIES*, 1951). Beginning at the end, let me inform you, as neither the cover or title-page of the book will do, that "The New Reality" and a shorter story, "The Chess-

players" are included in the Compact volume.

"Chessplayers" is a good, funny story; anyplace except sandwiched between *ROSE* and "New Reality," it might seem better than that. As it is—the latter, you may recall, is the story of Professor Luce, the ontologist, who evades determined government control in his effort to prove it possible to change "reality." The novelet reads like too much of the high-idea-content work of science-fiction: the characters are there to argue out the theories; the action is faintly reminiscent of the photography of early silent movies; the dialogue might seem at home in a magazine melodrama of the 1890's. I say all this, and add: even today, sixteen years after its pulp publication, "The New Reality" is a compelling piece of work. I couldn't put it down. (I read it, as it happens, for the first time in this volume, so there is no question of nostalgic attachment.)

ROSE comes out of the same powerful philosophic context as

¹*THE ROSE*, Charles L. Harness; Compact Books, F295 (London), 1966; 189 pp.; 3/6 (60¢, including surface postage).

"Reality," and though the prose style, as I look back at it, is only one degree farther removed from *Air Wonder* than in the shorter work, this time the concepts are integrated with a vivid story, and the characters are as convincing as they are bizarre.

The rose is a triple symbol, with significance to three people: for Martha-Jacques, top-level scientist, it is the graphic pattern of the equation she is pursuing that will contain ultimate knowledge; for her artist-writer husband, Guy, as for Anna van Tuyl, psychiatrist and dancer, its meaning is more obscure through most of the book—but compulsively strong: a question to be answered, rather than an answer to be found.

It is understandable that this book found no market here when it was written almost fifteen years ago; no one was buying a mixed bag of surrealism and science at the time. What is surprising is that it found magazine publication at all; it appeared in the short-lived British s-f magazine, *Authentic*, in 1953. Rather more surprising is the failure of American publishers, who have scoured the bottoms of some much mustier barrels lately for book material, to uncover it.

I am certain there will be an American edition sooner or later.

But my advice is, get the Compact book now—not just because it's *now*, or just for the two bonus stories, or for Michael Moorcock's knowledgeable introduction—but because Roberts and Vinter, who publish both Compact books and Moorcock's *New Worlds*, deserve a vote of appreciation for rescuing "Rose" from its dustheap—and quite probably for being instrumental, through the magazine's interest in his work, in getting Harness back to some new writing.

When I came back from England last fall, I had a copy of the Faber edition of *EARTHWORKS*² with me, and I waited this long to review it because I understood Doubleday was publishing a slightly different version.

The differences are very slight indeed, more in format than anything else. Not, in any case, enough to do what I had hoped: connect the last half with the first.

It is hard to believe that the same man wrote both parts—or that he had the same story in mind when he did. I know it must be so, because the *good* part is what reads like Aldiss—and the characters and places have the same names.

Granted, it is difficult to live up to an opening like this:

²*EARTHWORKS*, Brian W. Aldiss; Doubleday (New York), 1966; 154 pp.; \$3.50. Faber and Faber (London), 1965; 155 pp.

"The dead man drifted along in the breeze. He walked upright on his hind legs like a performing nanny goat, as he had in life, nothing improper, farther beyond the reach of ideology, nationality, hardship, inspiration, than he had ever been in life. A few flies of ripe dimension stayed with him, although he was far from land, travelling light above the surface of the complacent South Atlantic. The tasselled fringe of his white sylk trousers—he had been a rich man, while riches counted—occasionally catching a spray from the waves.

"He was coming out from Africa, moving steadily for me."

Nor do I mean to say the opening paragraph is all there is. The whole first half of the book, as Knowle Noland exposes himself, his past, his fears, his stubborn lingering unattached hope, to the reader's rapt gaze, is Aldiss at his best: brilliantly written in part, excellently most of the rest; rich with evocative imagery; utterly convincing in characterization and action. But even in this part, some small flaws show in the social structure Aldiss builds bit by bit, in flashbacks, to account for the four-man crew of the endlessly sailing automatic freighter, the *Trieste Star*, of which Noland is Captain—and for the dead man transported from the coast of Africa to the ship.

In mid-book, the *Trieste Star* runs aground, the spellbound isolated situation is at an end—and the whole thing turns into a completely routine artificially contrived adventure-chase, which ends with an effort to make an effective scene out of Noland's conversion to the belief that assassination is an effective modern political weapon.

I'll tell you how good the beginning is: it's worth getting the book for the first half. (Chapter Six is a good place to quit.) Well, it's worth it in the book-club, or in paperback; it seems to me for \$3.50, you ought to get a full 154 pages worth.

FROOMB!³ is a strangely old-fashioned-feeling book, full of exciting new ideas. It is stiffly, almost clumsily written; yet the characters (one feels, almost by a separate effort of their own) emerge with startling credibility on the page. The plot continually jumps from one improbability to another and less acceptable one; yet you keep turning pages, somehow, not just willingly but eagerly. I would understand it better if this were a first novel, by an unpracticed but vital young author. Lymington, however, is well-established in England, with five or six (I think) previous novels to his credit.

FROOMB is a catchword, a slo-

³FROOMB!, John Lymington; Doubleday, 1966; 187 pp.; \$3.95

MASTERS' CHOICE

The Best Science Fiction Stories of All Time

TWENTY MAJOR s-f writers and editors have gleaned through the whole literature of science fiction and have chosen as the best of the best these stories by Isaac Asimov, Ray Bradbury, Robert A. Heinlein, Fritz Leiber, Theodore Sturgeon and 14 other distinguished authors. And they add an Honor Roll listing more than 150 classics and where you can find them. A unique, exciting anthology — essential to all s-f enthusiasts.



Edited by **LAURENCE M. JANIFER** • 352 pages
\$5.95 • Just published • Simon and Schuster

gan, an explanation, the motto of the slightly future age in which the book is set; it stands for Fluid Running Out Of My Brakes. (One says, "Froomb!" in annoyance or despair. Or, critically, "He's gone Froomb!" Or, hip-ly, approvingly, "Froomb!") I won't tell you anything about the plot; it's too silly. But the ideas in back of it are *not*.

I hope Doubleday plans to do more of Lymington's work. I want to find out if they're *all* like this . . .

I'm afraid **THE LOAFERS OF REFUGE**⁴ was something of a dis-

appointment too—and I hate to say it, because for some years I have been turning eagerly to Joseph Green's stories in *New Worlds*—including, or rather, especially, the "Refuge" novelets and novellas—and enjoying them thoroughly.

The stories concern the gradual approach to cooperation and mutual understanding between the technology-oriented human colonists on Refuge, and the native "Loafers," whose culture is built on the development of an empathic, quasi-telepathic relationship with the flora and fauna of the planet. (There are some lovely scenes,

⁴THE LOAFERS OF REFUGE, Joseph L. Green; Ballantine U2233, 1965; 160 pp.; 50¢.

with Loafer controllers guiding the monstrous *grogroc* beast through the process of eating-out the insides of a *waquil* fruit, to make a new home for someone—or persuading the *whampus* to come to the surface of the water and be milked.) The handling of intercultural and interpersonal conflicts and approaches is carefully and effectively done. So is the structuring of the individual stories. The only trouble is—

The usual one. They called it a novel, but nobody bothered to turn it into one. Without the magazines to refer to, I cannot be cer-

tain, but it does not seem to me as though any revision was done at all: enough stories were selected to make a book-size thing, and they were lumped together and called a novel. (If there was any revision, it was in detail, not structure.)

On the other hand, now that you're warned, and since you probably have *not* read them before—just start with the understanding that every time you find that a new chapter involves a jump in time or continuity, you are beginning a new story. That way, it should work fine. —JUDITH MERRIL

REPRINTS:

TWICE 22, The Golden Apples of the Sun, and A Medicine for Melancholy, Ray Bradbury; Doubleday, 1966; 406 pp. (two volumes in one); \$4.95.

THE REST OF THE ROBOTS, Isaac Asimov; Pyramid R1283, 1966; 159 pp.; 50¢. (Doubleday, 1964). Short stories: Robot A1-76 Goes Astray; Victory Unintentional; First Law; Let's Get Together; Satisfaction Guaranteed; Risk; Lenny; Galley Slave.

KING KONG, Edgar Wallace and Merian C. Cooper; Bantam F3093, 1965; 152 pp.; 50¢. (Grosset & Dunlap, 1932). Novelization.

WALDO & MAGIC, INC., Robert A. Heinlein; Pyramid X-1286, 1966; 191 pp.; 60¢. (Doubleday, 1950). Two short novels.

NIGHT OF MASKS, Andre Norton; Act F-365, 1966; 191 pp.; 40¢. Novel.

CHILDREN OF THE LENS, E. E. Smith; Pyramid X-1294, 1966; 253 pp.; 60¢. (Fantasy, 1954). Novel.

COMICIZATIONS: (The following books consist of previously published material re-issued in comic-strip form):

THE AUTUMN PEOPLE, by Ray Bradbury; Ballantine U2141, 1965; 189 pp.; 50¢. Short stories: There Was an Old Woman; The Screaming Woman; Touch and Go; The Small Assassin; The Handler; The Lake; The Coffin; Let's Play Poison.

TALES FROM THE CRYPT; Ballantine U2106; 1964; 192 pp.; 50¢.

TALES OF THE INCREDIBLE; Ballantine U2140, 1965; 192 pp.; 50¢.



*"Of course, once the plague's done, we're both
out of a job."*

A successful free lance writer must be inventive and persistent. That these qualities also happen to be the mark of a successful collection man can sometimes be useful. Take Jose Silvera, for instance—a free lancer working on the biography of Huford Shanks, a bird-headed tapdancer turned politician. When Shanks reneges on the advance, Silvera . . . well, for pure ingenuity and persistence Silvera can't be beat. But can he write?

EXPERIMENT IN AUTOBIOGRAPHY

by Ron Goulart

THROUGH THE SILENT FOG Jose Silvera moved, leaving the gritty beach and dodging in among the sharp black rocks. Breathing for a moment through his mouth, he stopped in the grey dampness. Silvera spotted the old path that wound up the cliffside. He hunched one wide shoulder, flexed his left leg so that his blaster holster swung free and started upwards.

"Either cash or a certified money order," Silvera said to himself as he climbed. "No more checks."

At the cliff's top a great black

and tan dog snarled and dived at him out of the thick mist. Silvera pivoted, stunned the animal with the flat of his hand and pitched it toward the unseen beach.

"Cash probably," he muttered. "They may not even have money orders here in the Azores."

The villa had the expected high stone wall, topped with a foot high death beam that sizzled faintly in the mist. Silvera felled a nearby tree, fashioned a pole and vaulted the wall clean.

He hit on his right thigh on top of a metallic patio table, toppled

from that and almost skittered into the vapor topped swimming pool. He did a little balance retaining dance along the pool side and then zigzagged toward the big lemon-yellow house.

F. Tennyson Buchalter was jammed in a silver alloy chair evenly spreading quince jelly on an overtoasted English muffin when Silvera dived into the circular breakfast pavillion. "Yoicks," said the plump television producer.

"Two thousand dollars," said Silvera, his right hand a claw hovering over his blaster handle.

"Joe," said Buchalter, jelly on his thumb. "Miss Nolan sent you the check from Hollywood a month, a good month, maybe five weeks ago, Joe."

"Bounced," said Silvera, edging the check out of his tunic and tossing it.

The check spun, fluttered down into Buchalter's Lion Cross tea. "Insufficient funds," he read.

"Two thousand," said Silvera. "In cash. Now."

"Come on, Joe," said the producer. "Put the damn thing through again."

"We looked into it. There's no money in that particular account. Hasn't been since April 5 of 2094. Okay?"

Buchalter set aside his muffin, pointed at the tall Silvera with his jelly spreader. "Stories I've heard, a good many stories, about you,

Joe. How you never let the Guild arbitrate for you."

Silvera spun out his pistol, said, "Pay me the money."

"You writers," said Buchalter. "I wish those mechanical brains had been able to write better dialogue. Then I wouldn't, really wouldn't at all, have to fool with temperamental guys like you."

"I get upset when people don't pay me."

"Okay, Joe, okay. But I could get you blacklisted." Buchalter pushed back from the table, grunted up out of the tight chair.

"Arnie Maxwell tried that," said Silvera.

The producer nodded. "I remember." He ticked his head twice at the doorway and a seven foot tall Negro stepped in, frowning at Silvera.

"The egress?" asked the Negro.

"No use," sighed Buchalter. "He, being a stubborn bastard, would just fight his way back in and unsettle my vacation even more. You wouldn't take a check on a Geneva bank, Joe?"

"Cash."

"Get Mr. Silvera 2000 in cash from the bedroom safe, Norman."

The Negro moved out of the room.

Buchalter scratched his kidneys and narrowed one eye. "We're thinking about doing a documentary on the swing music of the 20th century. Goodman, Shaw, Isham Jones. Pay five thousand."

"No," said Silvera. "You're on my blacklist for awhile. Check with my agent in six months, though, if you come up with something else."

"If only you didn't write such good dialogue," said Buchalter as he took a handful of cash from the returned Norman.

Silvera's cruiser was not where he'd left it, beached in among a ring of freckled grey rock. As he stood, hands on hips, in the exact spot where he'd left the ship something banged his shoulder.

Silvera jerked aside, gun out.

Looked up. With his free hand he patted the pocket where the two thousand was.

"Jose," called a nasal voice up in the mist. "I've got your cruiser up here in the yacht. Climb aboard."

"Boy," said Silvera, catching the dangling ladder, "you'll travel a hell of a long way for ten percent."

At the entry way to the big cruiser yacht was Rilke Wheatstraw, a slender jumpy man with dark ringed eyes. "That's not the reason. Though you might as well give me the two hundred now, to keep the books straight. You did get the whole amount, didn't you?"

Silvera caught his agent's hand and came aboard. "Sure," he said. "I don't like guys who welch on what they owe freelance writers. One way or another, sooner or lat-

er, I like to collect." He gave Wheatstraw two hundred dollars.

His agent called out, "Start the ship for home, Cullen."

"You still have that fag for a pilot?"

"He's the best man I know for navigating in a fog. Let's go into the cocktail lounge. I've got a great new assignment for you."

Silvera sat in a black realeather chair and asked the automatic bar to wheel over a brandy. "So?"

Wheatstraw jiggled in his chair. "You're not against space travel, Jose. Right?"

"But not another deal like that industrial documentary on Jupiter."

"This," said his agent as their drinks rolled up on a burnished cart, "is a little different. This is a job to write a book."

"A book?" asked Silvera, sitting up. "I haven't done a book since those dime novels for the Mars frontier settlements."

"Not a novel this time," said Wheatstraw, wiping gin fizz foam from his pale lips. "An autobiography."

"Whose?"

"Well," said Wheatstraw, looking down. He raised his head and grinned. "I'd better mention that it pays 20,000."

"Fine," said Silvera. "What kind of an advance?"

"They'll pay travel expenses and hand over 5000 when you arrive."

"Travel expenses to where?"

"Well, this is a little way out, Jose. It's one of the planets in the Barnum system. It's a planet named Turmeric."

Silvera said, "Wait. Turmeric. That's where the people all have bird heads, isn't it?"

"Yes," said Wheatstraw. "This client wants you to ghost his autobiography. He's the Governor of Sector 2 up there. An important man, being considered for President."

"But he's got a bird head."

"As a matter of fact, he's got a head like a puffin."

"I don't know."

"The political situation," said Wheatstraw, "on Turmeric is a little tense. I have to send a writer who can handle himself, a good man with weapons or even bare hands. I could have got Reiberson but you know how he's been fainting lately."

"But a puffin head."

"20,000, Jose."

Silvera exhaled. "Okay. What's the guy's name?"

"Hurford Shanks."

"What can you tell me about him?"

"Well, before he went into politics," said Wheatstraw, "he was a tapdancer in the movies."

"Wonderful," said Silvera.

"This," said Hurford Shanks from the top of his desk, "is how we used to finish the act. Watch."

He sailed off the pseudowood desk and landed in a splits on the floor. Two white feathers detached themselves from his puffin head.

"You always wear a straw hat in your office?" Silvera asked.

Shanks rubbed his big curving orange beak with his thumb. "Sure. Lots of the voters drop in here. Though I may be Governor, I'm not too busy to talk to the man from the marketplace and the crossroads. The highways and the byways. Don't you reporters take notes?"

"Freelance writer," said Silvera, lighting a cigarette. "No, I keep all the important stuff in my head. As long as we're asking questions, where's my money?"

"Money?"

"I've been at the Tumeric Crown Hotel for two days," Silvera told him. "Your people take care of my hotel bill and they gave me a punch card for a nearby cafeteria. But nobody's delivered the 5000 advance I was supposed to get on arrival."

"Really?" asked Shanks. He scissored his legs together and got up. "I instructed my secretary to send you a check. Well, well."

Silvera looked around the room, at the walls that were covered with autographed photos of bird headed actors and actresses and flags, then back at the Governor. "I'd like the money as soon as possible."

"There's a lot of pressure in the political game," said Shanks. He tossed his straw hat up, caught it on his elbow and cartwheeled it back on his feathery head. "I have many enemies. In particular a wild eyed agitator named St. John Moosabeck. A treason prone, radical, bearded fellow."

"He's got a beard?"

"It's a false one."

Silvera nodded. "We can get more into your show business career later. First maybe you ought to fill me in on your rise in politics."

Shanks snapped his beak and picked a framed photo off his desk. "It seems to me a man is more than just his politics, Silvera." He tossed him the picture.

It was some kind of ancient aircraft. Not a cruiser, not even an old-fashioned jet. "What is it?"

"My hobby," explained the Governor. "That's a Sopwith Camel. Back on your home planet they flew around in those things back in the 20th century. I have thirty-four of them. And teleporting them all the way to Turmeric from Earth has cost a pretty penny."

Silvera gave the photo back. "About your rise in the political sphere?"

Shanks picked up a memo pad and drew something on it. "I'll be at one of my concealed fields tomorrow in the morning, inspecting a batch of my planes. I find it's best not to let my rivals get

wind of exactly where I pursue my hobbyhorse. At any rate, I'd like you to meet me at Field #1 tomorrow at ten. Give you an idea of what sort of a fellow I really am. See me among my little toys and so on."

A girl secretary with a ruffled grouse head shot into the room. "There's another food riot in the suburbs, Mr. Governor."

Shanks shook his head. "My political rivals, Silvera, have convinced some of the citizens that they're starving." To the girl he said, "I'll attend to it later, Mavis, and call out the militia or something. Right now." He crossed to an upright piano and flipped up the lid. "Right now I'm going to entertain Silvera with a medley of hit tunes from some of my famous movies."

Silvera hunched down in his chair and listened.

The android tapped on Silvera's hotel room door just as he was trying to get hot water to flow in the shower stall. Silvera, retying his robe, opened the door.

"You requested a stenographer?" asked the olive drab android.

"Right. Come in."

The andy was man headed, not quite as tall as Silvera, carrying a typewriter in its right hand. "I was originally programmed to be a gourmet chef," said the android. "But a temporary personnel gap here at the Turmeric Crown

caused me to be rearranged." The machine sat down, crossed its legs and said, "I am ready to proceed."

"Why don't you," said Silvera, "wait till I get my pants on."

"As you wish."

Silvera moved to the bathroom area. He was pulling up his trousers when the android jumped him.

The whir of the surgical drill the andy had replaced its right hand with was loud in Silvera's ear as he bicycled them both back into the shower alcove.

"Death to the enemies of progress," cried the machine. "Death to the Earth hirelings of the corrupt government. Death to those who would glorify our lousy Governor."

The drill perforated Silvera's earlobe. He managed to shove the android's dangerous arm further away from his head. "You really feel that way about me?"

"No," said the android. "I say whatever they program."

Silvera ducked. "I see. Who hired you?"

"St. John Moosabeck of course."

"Oh, so." Silvera clutched at the android's head, managing to loosen a pair of screws. Shifting his shoulders, Silvera got the right position and, using the andy's arm as a lever, threw the machine across the room.

The android landed, as Silvera had calculated, with its loose-screwed head in the toilet in-

stallation. With a quick jump Silvera was at the flush button. The cascade of water made the android's head sizzle, blink and then short out.

Silvera jerked the ruined android out into the living room and dropped it behind a sofa. He dressed without showering, picked up his meal ticket and went out to the nearby cafeteria. The place was out of food.

The rioting awakened him early the next morning. A brick smashed through his window, something you didn't expect on the 13th floor.

Dressed and in the lobby, Silvera learned that St. John Moosabeck had started a series of vast riots, the ultimate object of which was the storming of the capital buildings. Silvera learned this from the lark-headed desk clerk, a loyalist, who was then interrupted by a bellboy who was pro-Moosabeck.

Silvera hustled through the confused lobby crowd and out into the street. Buildings were burning, blasters were crackling. A police cruiser crashed into a fountain apexed by a statue of Shanks in a tapdance attitude. A warbler-headed fat man trotted by with a deepfreeze on his shoulder. Three cartons of chicken parts fell in Silvera's path. He dodged and looked around for transportation. Shanks office hadn't delivered the

courtesy cruiser they'd promised.

Three woodpecker heads ran by waving torches. A parrot woman tried to throttle Silvera. Two teenage orioles were stealing a bathtub from an antique shop next to the hotel. Further down the street, in front of the smashed in cafeteria, a crowd was wrestling with six assorted police officers. Silvera doubted he'd be able to get a taxi.

"But I'm going to get that 5000 advance before the country collapses," he thought. "Shanks might be at Airfield #1."

A cruiser buzzed the crowds, broadcasting pro-Moosabeck. Silvera made a running jump and caught the tail gate.

"What are you up to?" asked the big grackle-headed pilot as Silvera climbed in.

"I've always been interested in the broadcast media," said Silvera, stunning the man with the edge of his hand. He tied him in mike wires and, swinging into the control seat, caused the cruiser to climb up above the buildings. In fifteen minutes, following the Shanks-drawn map, he was at the Governor's hidden hobby field.

The small runway was flanked on each side by a half dozen antique airplanes. Silvera recognized one as a Ford Trimotor because it had been pictured on a stamp his grandfather'd once given him the summer he was interested in stamp collecting. Silvera dropped the cruiser down next to

a ship with two sets of wings, jumped out and headed for the big curve-roof shed where people seemed to be gathered.

Two woodpecker heads were wheeling out a plane. When Silvera pulled up under the right wing Governor Shanks came running out of the shed with two suitcases.

"One of my passenger ships," said Shanks, nodding at the plane.

The men got the propellers spinning. "I wanted to talk about my money," said Silvera.

"The autobiography venture will have to be postponed, Silvera."

"5,000, book or no book," said Silvera. "That's the agreement you signed with my agent."

"I'm sure an act of god, such as the imminent collapse of my regime," said Shanks, his orange bill flapping rapidly, "changes and cancels all agreements."

"Oh, no it doesn't," said Silvera. He swung his hand around to reach for his blaster. Somebody clamped his arms to his sides. Over his shoulder he saw the head of a fierce starling.

"You are in the grasp of Tully Spand," said the Governor. "Spand is prominent in our local underworld. Right now he's been trying to persuade me to pay him a small amount to tide him over until the fate of my government is determined."

"He's been holding back on the kickback dough," said Spand. "And the cemetery graft. Now that he's washed up I want to collect."

"Fix him," ordered Shanks, "and let's get on to the next money cache, Spand."

"Right," said Spand. He tightened his hold and someone else came up and slammed Silvera on the head with a length of pipe.

A couple of minutes after he fell he heard planes fly away.

"The money," said Silvera. He was inhaling something odd and it made him wake up and blink.

A rangy blonde girl in a tan jumpsuit was next to him on the runway, holding a white cylinder near his nose. "I didn't have any smelling salts but I hoped my perfume would maybe wake you up. I tried a nasal spray mist but you stayed out. My name is Anne Steiner. And you're Jose Silvera."

"You know me?" Silvera bent his neck and felt at his head.

"Don't poke that sore spot. Yes, I searched you when I found you. You're the writer, aren't you? I remember some of your credits back on Earth."

Silvera looked at her. She didn't have a bird head. She had a pretty, good-boned face. "You're who? And doing what here?"

"Anne Steiner," said the girl. "I'm with the Proven Worth Entertainment Corporation. Some

pre-testing indicates that our clients on several planets would get a favorable audience reaction to a televised documentary on Governor Shank's airplanes. It's one of the few collections anywhere, except for a man named MacQuarrie on Venus who won't play along with PWEC. Are you okay?"

"Sure," said Silvera as the girl helped him to his feet. "You see Shanks?"

"No. I was to meet him here today to talk over our project. I guess all the rioting has caused him to change his plans."

"Shanks is running," said Silvera. "Skipping with the government funds." He told the blonde what had happened.

"You'd like to catch up with him probably."

"Yeah. I have this thing about collecting money that's owed me."

"Think he's likely to head for one of his other hidden fields?"

Silvera thought. "He had money stashed here. He might have it at the other places, too."

"I know where all the other fields are. Found out so we could do the documentary," said Anne. "Want to go look?"

He glanced toward the sound cruiser he'd flown out in. "It looks like they disabled my cruiser."

"And I came out on a bicycle," said the girl "Hey, wait. They didn't wreck the airplanes."

"You can fly one?"

"Part of my research work. I learned to fly planes. Let's take the P-38." She pointed at the plane.

"Won't it be crowded?"

"We'll rip out some radio equipment and stuff," said Anne. "I've always wanted to try and fly one."

They found Shanks at the second field they tried. He and Tully Spand and a finch-headed man were throwing suitcases into a large transport plane as Anne circled the field.

"That's a DC-6," said the girl. "I'll land now. Okay?"

"Okay," said the crowded Silvera.

"I'm sorry about flying upside down over the mountains."

"You're doing fine."

Anne brought the P-38 in and taxied it to a stop in front of the DC-6. "Keep them from taking off."

Silvera squeezed out of the cockpit, dashed along the wing. He jumped and caught one of the propellers of the DC-6 and swung up on its wing. He edged up to the ship, scrambled up on top of it.

Tully Spand shot at him from the other side.

Silvera shot back and then threw himself at the gangster.

While they were tangling Shanks swung one of his suitcases at Silvera.

Someone shot the suitcase from the Governor's hands. The case flipped a somersault and bounced open. A packet of bills tumbled out.

"Earth money," said Silvera as he broke the thumb on Spand's gun hand.

"Easier to spend throughout the universe," said Governor Shanks, clamping the suitcase shut with his good hand.

"Step back," ordered Anne. She had a pistol pointed at the Governor and the finch hireling. "You, Spand. Let go the gun."

"It's a fight to the death," grunted Spand.

"Stop kidding," said Silvera. He slammed an elbow into Spand's beak, cracked it, knocked him out. Silvera rose, kicked open the fallen suitcase. "I'll take my 5,000."

"To see you helping an obvious enemy of mine, Miss Steiner," said Governor Shanks, "saddens me."

Anne shrugged. To Silvera she said, "If we can refuel here we should be able to fly to the next territory. Be safe there."

Silvera was counting money but he paused to nod yes.

Here is a strong, suspenseful story of fraud and extortion and murder in the halls of academe, and of discovery by a man dead for fifty years. If you think you're about to start an utterly fantastic thriller, you are about half right. Chills and thrills we can promise, but there is very little of the fantastic here. Mr. Marshall's first story for us is an inventive and credible science fiction story.

BRAIN BANK

by Ardrey Marshall

STURM HAD BEEN A BRAIN Banker fifty years since his death, and with good or bad luck, depending on how one regarded the situation, he'd be one for at least another century, until he died again.

A high-pitched whistle shrilled painfully in the back of his mind. It sounded like an animal squealing before slaughter. Yanked from sleep, he grumbled to himself.

Damn nuisance. Couldn't they leave him alone for the rest of the shift? Twelve hours was too much for anyone to take, listening to lazy schoolboys pose homework problems they'd no intention of solving without help, "sir"-ing them despite they're being seventy years his junior, bending over

backwards—only figuratively, since he had no back—to avoid offending them, and generally trying to sound as servile as possible. What had life come to when a whining schoolboy or an irritated housewife could have one disconnected permanently, which amounted to swift execution, merely by complaining of alleged "discourtesy"? What a shame people weren't forced to spend a day in the Brain Bank before first death. If they did, they'd realize that Bankers, despite the stories that circulated, were still human.

The whistle shrilled again with shrieking persistence, and he tried to throw off his sleepiness. He opened his prism eye, unhooked his mechanical claw, and

switched on the floodlight illuminating his blackboard.

The screen on the wall across the room flickered, and a picture of a stout man in a white laboratory smock appeared.

Sturm cleared his throat—a habit he'd acquired fifty years before at the University, where he'd lectured in mathematics—and said, "Brain Bank, B 45 speaking, Sir."

"B 45, is it?" the man said.

Right away, Sturm sensed contempt in the voice. His pride rankled, but he held his mechanical tongue. "Yes, Sir. This is B 45," he replied obediently.

"Good," the man said, sounding as though he were addressing a tardy servant. "I saw your background in the catalog this morning, and decided you'd be the one for my job."

The man blinked sluggishly, removed his steel-rimmed glasses, cleaned them on a fresh handkerchief, and tried to wipe his nose inconspicuously between two fingers. He was around eighty years old, still in the early prime of life, and showed practically no signs of advancing age. His jowly face made him look bored. But his watery-blue eyes and his immaculately-combed hair, thinning at the front, made him also seem familiar. The cut of his mouth from the side—he maintained himself obliquely from the telly screen—was grim. From the way he sat, he

was obviously self-conscious, as though hiding something. He coughed and nodded, allowing Sturm to discover what he was concealing: a wart sprouting several hairs grew on his left cheek.

"B 45," the man started in a demanding tone, as though wanting to demonstrate his authority from the very beginning, "I am Professor Ludgin—Doctor Ludgin to you—from the Mathematics Department at the University. I saw . . ."

Ludgin! It couldn't be! But after all these years, it certainly was the old devil, right down to the fuzzy pointed ears and the wart on the cheek. The fat slug hadn't changed as much as one might have expected. Odd, how a face once perfectly familiar and thoroughly disliked, out of mind all these years, could even for a moment pass unrecognized; fortunately Ludgin didn't recognize whom he was addressing. Otherwise their conversation would have been Sturm's ticket to a speedy second death.

"I saw from the catalog, B 45," Ludgin said coolly, "that you have an extensive background in higher mathematics. I've got some complicated equations concerning proximal relations in topological dynamics, and I want them checked. Think you could handle them?"

"Certainly, Sir," Sturm said, trying to sound slightly conde-

scending. "That was my field when I was an undergraduate."

Ludgin showed no sign of having noticed the tone. Undoubtedly he had, however, for he'd always been sharp at detecting nuances. "I've also got several problems which I must absolutely have solved by next Wednesday. I'd like to give them to you, too. It's important, though, that I have the solutions on time. Would you like to tackle them?"

"I understand, Sir," Sturm said. "I'd certainly like to give them a try." He wanted to mention just how well he actually did understand, but he didn't dare. If Ludgin was up to his old habits of fifty years ago, he probably had a paper to give, and wanted someone else to prepare it for him. There was no reason to suppose he'd changed.

He'd been a wheeler-dealer and a smooth talker ever since Sturm had met him. In fact, he'd been a real manipulator, and always got exactly what he wanted from everyone. As a student and as a teaching assistant, he'd been an unctuous character, especially in the presence of a faculty member. When it was important, he'd always smiled at just the right time, laughed with just the correct amount of hilarity, shook hands affably, and joked well enough to keep professors in stitches. And he'd even fixed up the right people with wholesale liquor prices from

his uncle, who controlled the hemispheric liquor syndicate.

Sometimes his tactics had been astoundingly crude, and were transparent to everyone but his victim. In the presence of a professor giving a seminar meeting, for instance, he'd pick the most effective time to joke with an enemy about how the fellow must have spent the previous evening "debauching" instead of studying. If someone had an original idea, Ludgin never failed precipitously to mention how beautifully "simple" it was, dwelling over the adjective to imbue it with a touch of *double entendre*. He held such an ugly, evil fascination for people that sometimes he even used them when they were aware of the fact: he so charmed them with his bold effrontery that it seemed worth being taken advantage of simply to watch him in action.

Ludgin's "projects" were the joke of all the other teaching assistants. Ludgin gave projects to students who wanted higher grades. He emphasized that homework could fall by the wayside, but that the projects had to be completed. The projects, mysteriously enough, always seemed to be closely related to his own research.

With his mechanical claw, Sturm reached above his tank and turned the saline solution valve. He'd taken a little too much distilled water that morning—he'd

been interrupted in the midst of the process by a telly query—and hadn't felt right since then. He let a cupful of liquid splash into the tank before turning the valve shut.

Ludgin, evidently interested in the sight, leaned forward to watch.

Sturm wanted to make a remark. One expected a man of Ludgin's position either to have the courtesy not to be rudely curious, or to have become used to the sight of Bankers after using them throughout fifty or sixty years of research. Even young children didn't find them terribly remarkable after seeing a Brain the first or second time. And professors, having Bank entrance privileges, sometimes even came to the cubicles, though this was rare, to work directly with their Brain assistants.

People were used to seeing Bankers whenever they needed a problem solved. In his or her tank, a Brain looked more like a sponge or a piece of coral in an aquarium than like an excised remnant of a human being. Perhaps that was why society's attitude toward Bankers was more the attitude one might have toward a possession than toward another human, and why legally they were no longer regarded as humans. The brain convolutions were scarcely visible: a maze of red, blue, green, and yellow wires coded with stripes and spots were

attached to the surface in order to gather nerve responses for the Banker's mechanical devices—a cubicle speaker for communicating with the technicians who occasionally chanced by; another speaker for the telly-talk hookup; a movable prism eye that sometimes required focusing; and a mechanical claw for writing on the blackboard, moving the eye and its portable stand about, and turning the solution valve. All the wires joined in a large waterproof cable fastened to the ceiling. Usually the only movement a Banker made came from the circulation pump feeding fluid to the oxygen diaphragm, which pulsed with delicate regularity.

The Professor licked his lips. "I'll tell you what," he said. "Tomorrow, perhaps I'll have central fix us up with a private connection. I won't have you disturbed while you're working for me." Then, as though bribing a child with a cookie, he added, smiling, "You can finish the work in just a few days, but we could keep the connection for a fortnight or so. That way you could rest or do whatever it is you Bankers like to do in your spare time. If you prefer, I'll have my secretary get a phonograph from Audio-visual and play a stack of symphonies for you every morning. You do like symphonies, don't you?"

"Very much, Sir," Sturm replied, trying not to sound too

eager, but thrilled at the thought. At the same time he was angry. Ludgin must long ago have discovered how to cajole maximum effort from a Banker. It didn't take much thinking to realize that a person secluded in an isolated room, unable to speak to others except on official business—and that, mathematics—soon hungered for emotional human contact, especially for its distillation in art. A bribe like that was more effective than threats.

"Of course," the Professor added slyly with a hint of a wink, "you'll get the symphonies only if your work is satisfactory."

Why, the bastard, Sturm thought. The dirty bastard. That was open bribery. It was degrading, undignified, and offensively blunt.

Ludgin chuckled, having pulled the ace from his sleeve. "And for being so agreeable, which I'm sure you'll be," he added, with an open hint of sarcasm, "I'll even leave the telly connection for the rest of today to allow you to ruminate my proposition."

"Thank you, Sir," Sturm replied venomously. He wanted to add, "you fat slug," but managed to quash the temptation. Why resist just for a show of independence? Pragmatically it would achieve nothing except a possible soothing of pride; and an open show of defiance could very well mean disconnection.

Back in the old days when they'd been students and teaching assistants together the situation had been different. They'd been voluble, eager enemies then, each taking every opportunity to pick at the other. On one level, theirs was a stupid, immature argument; but it certainly had been fun.

Sturm remembered one afternoon in particular when Ludgin had entered the office shared by the TA's, in a typically nasty mood. Ludgin slammed his books on his desk and announced in a loud voice that seemed designed to disturb as many people as possible that he had it in for a student, and was going to flunk the fellow that semester if it was the last thing he accomplished.

"What the hell for?" Sturm asked angrily, looking up in disgust.

"Mind your own business," Ludgin answered, his paste-colored face flushing slightly at the sign of open disapproval.

Sturm regarded himself as Ludgin's self-appointed gadfly, so he rushed into the breach: "You just made it my business, and everyone else's, by announcing it publicly."

Ludgin snorted in irritation.

"Why bother?" Sturm prodded him. "Just to get even with humanity?"

Someone snickered in the background.

"Sometimes you amaze me,

Sturm," Ludgin responded, shrugging his shoulders and nodding his head, as though there was no hope for such a simpleton. "Haven't you ever just taken a look at someone and hated him right off the bat? The minute I saw this kid Moore, I knew I had to get him. And by God I will. Just watch me.

"Besides," he added lamely. "He's trying to give me a hard time. He's done nothing but argue and ask questions for a month. As far as I'm concerned, a student should be like a goose being turned into *pate de foie gras*. Knowledge ought to be rammed into his mouth like so much corn, and he oughtn't to struggle. What Moore doesn't know is that with all his questioning nonsense, he's already cut his own throat."

"But just for the record," Sturm interjected, "you decided you were going to get him before he started being so inquisitive, right?"

Ludgin thought for a moment. "Certainly." He smiled, exposing three gold teeth.

"And you're really going to do it, aren't you? Don't you know you could ruin his whole life?"

Ludgin broke into a fit of laughter tickled to such an extent that he dropped a book he'd been examining. He grinned and said, "That's the general idea." He took a cigar from his suit pocket, picked up the book, lit the cigar.

"You must get sick thinking about yourself," Sturm said bitterly.

"Tut, tut. Pot calls the kettle black," Ludgin replied with an acid dash of humor. "At least I don't sit around moralizing all the time and trying to bear the whole world's cross like some people I know."

Sturm glanced up. "There's not much danger of that either, is there?" he retorted. He left the room in anger, not just because of Ludgin, but also because he, himself, had become so irritated.

In following weeks, Ludgin reported the progress of what he called his "anti-Moore campaign," oblivious to the disapproval of others. He announced every grade he gave the student, jubilant whenever it was a failing one. He recalled the times he'd squelched Moore, and described each occasion he'd made a fool of him in class. Finally, one afternoon at the semester's end, he announced he'd been able to flunk Moore on his oral final by rattling him into total confusion. And at last came the crowning achievement, the final glory! Ludgin flunked him for the semester.

This did not happen, however, without a stink. Moore complained to the Dean. Ludgin, swearing with lamb-eyed innocence, waxing eloquent, and clasping his hands earnestly before him, insisted that a line had

to be drawn somewhere. After all, as an instructor, he'd only been doing his duty, despite having tried to be lenient. Besides, Moore had no proof. This was a trumped up charge. Moore had disliked him from the very beginning.

And while Ludgin made these charges, no one came to the defense of Moore. Ludgin's students and all of Sturm's fellow teaching assistants preferred silence to involvement.

What should he do? Sturm asked himself. At first, the answer seemed clear. But somehow the question became confused in the tangle of events. Sturm at last settled on what he could do, rather than consider the morality of the situation. If he intended to remain at the University, or ever to return to it from a teaching position at another, it would be unwise to "make waves" and disturb events.

Finally another force stepped in. Dr. Pendergast, the Department Chairman, and one of the most eminent mathematicians in the country, whom Ludgin had been supplying with discount liquor and a plenitude of oily smiles, paid an angry visit to the Dean. Pendergast pounded his fist beneath the Dean's very nose, shouting angrily, "No proof! No proof! There's absolutely no proof in this student's ridiculous charges." And Ludgin, he lied—he must surely have known that he was lying at

the time—was one of their most brilliant graduate students, as well as a fine teacher. As Department Chairman, he vouched for Ludgin's integrity. Pendergast departed after muttering that although he, himself, was well situated at the University, job offers still reached his office from all over the world.

The Dean took the hint and knuckled under. Moore was separated permanently from the University. Ludgin emerged from the fray smelling like roses.

But Sturm had been affected, too. A layer of his naivete was gone, and he was disillusioned. The University, the community of reason, the place he'd expected to be the last refuge of truth, honesty and justice, was no better than the rest of the world—a dungheap of scratching, unscrupulous animals. If practice formed the standard for one's judgment, there was more than a kernel of truth in the maxim one frequently heard jokingly repeated on campus: "Do unto others before they do it unto you."

"So, you'll start first thing in the morning," Ludgin said flatly, interrupting Sturm's thoughts. He was telling, not asking. His face, pale and flaccid, loomed huge on the screen.

He took some envelopes and papers from his desk, slid them into his attache case, stood, and called out to his secretary: "Miss Durant! I shall be off now. Kindly leave

the telly switched as it is. I'll stop by for a few moments around four-thirty."

"Yes, Dr. Ludgin," Miss Durrant's voice sounded in a high, nasal twang from the distance. "Where can you be reached in the meantime?"

Ludgin scowled, half turning in the direction of her office. "I won't be able to be reached," he snapped, with uncalled-for aggressiveness. "I shall simply be out, that's all."

"Very well, Doctor."

Ludgin turned once again to the telly screen. "And I'll start you on your work tomorrow morning, B 45."

"Yes, Sir," Sturm said obediently.

An hour later, Sturm found himself in a gloomy, introspective mood. He mused about dying, recalling what he'd been through, and wondering how his final death would come. On the telly screen he faced part of Ludgin's office: the desk, and across the room the bleakness of a wall interrupted by a picture and a partially-opened door, which he suppose led to the secretary's office.

His mood stemmed from the picture, a lithograph of a terrible scene in which a woman seized from behind by Death was being dragged into the shadows. Opposite the skeleton monster, a child reached out towards the woman from the light.

His first death, he reflected, had been quite unlike the struggle in the lithograph. In fact, it was as easy as exhaling a sigh. That year he'd turned thirty-two, a young age for someone of such academic accomplishments. He'd received two post-PhD degrees, and had already published one book which was selling well and threatening to become well known. Though he'd not yet received tenure—that was still undoubtedly quite a few decades off—he'd been appointed full instructor. He was walking to campus one cool September morning, on his way to class. The time had come, he thought, paying no heed to traffic as he stepped down from the sidewalk, to consider settling down. Sometime that month he'd pop the question to Marsha, a plump, rosy-cheeked girl doing second-year graduate study in English literature, and whom he was seeing almost every evening, spurred on by her infectious laughter, her wide hips, and the magnificent pair of bibliographies she'd compiled dealing with Anglo-Saxon short lyric poetry, ample proof that along with her lovely personality, she had the makings of a scholar. He was remembering how he greedily loved to kiss her hands and neck. He heard a shout, and suddenly felt the shock of being struck from behind by an overwhelming weight.

Flung into the air like a wind-blown leaf, he found himself hur-

ting down. The ground opened before him into a deep, black well. He struggled, falling, and falling still, the bottom beyond his sight. He sighed, and recognized in an instant of thickening blackness that he had taken his last breath. The dark wrapped around him like a cocoon.

Later he awoke in jangling confusion. Inside his skull, his brain seemed to be boiling. Thoughts, sounds, memories and sights bubbled to the surface in a surrealistic welter. Where was he? He felt a dog's warm tongue licking his hand. Was that the odor of roses around him blending quickly into the sour smell of antiseptic? A moth fluttered eerily before a candle on the porch of a distant house that squatted darkly on a hillside. Yet how could he be far enough away to see the house, and also near enough to see the soot rising from the taper's flame? He felt motion sick, as though he were wheeling in vast circles through the sky.

He tried to talk. "Where . . .?" He imagined he moved his lips, but he heard no sound. He tried again.

"Be quiet, Sturm," a voice ordered in an odd, sizzling tone.

A brilliant light flashed and died away.

Sturm began mumbling.

"Don't try to talk!" the voice insisted angrily. "You'll ruin our work. We can't understand you anyway. We're still connecting

and transplanting, and you'll have to be quiet."

"They always try to talk," another voice said.

For hours he wallowed in an eerie Limbo, hearing clicks and mumbling, the sound of scissors snipping. He felt strange pressures pushing and pulling all over his body. He was unable to move; he imagined he was mired up to his chin in thick, oozy mud.

Suddenly his mind felt clean and clear. He blinked—at least he went through the effort of blinking—but nothing happened. He spied a pinpoint of light, and concentrated on it. It grew wider, and opened like a camera lens, revealing a group of smocked figures standing around a tank.

One of the men turned and stared, then seemed to approach Sturm. He had thick eyebrows and grey hair. He was pulling off a pair of rubber gloves.

"Sturm," the man said. "Make a sound if you understand me. Can you hear what I'm saying?"

Sturm grunted weakly: "Yes." He heard himself making the noise as though his ears were yards away.

"Fine," the man said patronizingly. "That's it. You'll feel better soon. I suppose you've guessed where you are. We couldn't save your body. After the car hit, you were crushed by a truck. There wasn't a thing we could do. But your brain was undamaged, and with your talent and knowledge

... you couldn't be allowed to die."

The Brain Bank! The realization hit him like a flash of chill lightning. He was only a vegetable now, a creature in a tank. He had no limbs, no head—in fact, no body. Legally he was neither alive nor a person. To him, Marsha might still remain; but she would consider him liquidated!

How could they have done it? What right did anyone have? Wasn't a clause in one's will the usual legal requirement? Wasn't his permission necessary?

"I didn't put it in my will," he uttered, confused and nauseated.

The man nodded soothingly. "Yes . . . yes, I know." He looked awkwardly at the floor as he continued. "I understand. But there are times when you can't be selfish, Sturm. And with your talent . . . Besides, you're legally dead. Who's to complain? You can't. And as for that permission bit, that's all a myth, something we tell people so that during their life they don't get nervous. Actually, here at the Bank, we are the ultimate authorities. We take whatever brains we want. We pick and choose according to our needs." The man turned and shuffled awkwardly back to his companions.

"But it isn't fair!" Sturm shouted.

Several technicians glanced briefly around, then resumed their conference.

"Why didn't you let me die?" Sturm shouted. "Please, kill me now. Don't make me live like this. I'll commit . . ."

One of the men reached beneath the tank and flipped a switch. In mid-sentence, Sturm was unable to talk. He felt himself going through the motions of articulation, but he no longer heard himself making sounds.

"I'm tired of hearing things like that," the man who'd flipped the switch said angrily. "It isn't our fault. We didn't make the system." He turned to one of the others. "They never seem to understand."

Sturm felt himself whirling again, slipping back into muddy clouds of unconsciousness.

For a period which he later judged lasted several days, he slipped in and out of this murky awareness. It took him quite some time, however, to become reconciled to his new mode of existence and the tiny cubicle that contained him.

Several times each twelve hours the telly screen flickered on without warning, and one of the Bank rehabilitation and attitude therapists gave him instructions on how to use his mechanical claw. Once a day there was even a schedule of supervised exercises. The worst feature he found to be the filmed exhortations designed to improve his attitude, in which the same man each time pointed out that "Life at the Brain Bank is a unique

chance for service to the community, as well as for prolonged learning in your field. You may make of it what you wish."

Sturm struggled with his claw, at first so clumsily that he frequently overshot the marks painted on the floor he intended to touch. The therapists, all bored, yawning chaps, repeated over and over again, as though they had memorized the words and could say nothing else, "You'll learn on your own, just like all the Bankers do. Don't worry." Each time they advised him to perform an exercise, they requested him to do it six times, rest a few moments while they gave him "psychological therapy and attitude improvement," and then to do the exercise another half-dozen repetitions.

He discovered that no matter how poorly he performed, they always encouraged him, telling him how well he was doing, and urging him to persist. Then one afternoon, having completed the first set of exercises, he was so exhausted he was unable to resume them again. The therapist, however, kept saying: "That's it. Wonderful. You'll have full dexterity in no time at all."

As an experiment, he did nothing when he was supposed to exercise. The therapist smiled obliviously, counted cadence, and continued to urge him on, unaware that Sturm was still resting.

He realized then, despite every-

thing they said, that he was being trained by films. In fact, he himself had been reduced to the level of a machine.

He thought again of suicide. That such an act was "wrong" seemed foolishness to him, a remnant of a primitive and superstitious past. But the act was irrevocable, a thought which restrained him. He was in no hurry to decide.

Then one morning a stabbing pain accompanied by a shrill bell exploded unexpectedly in his mind.

Another figure, a new white-smocked technician, appeared on the telly screen.

This one, however, was not filmed.

"You hear that bell, B 45?" the man asked in a surly tone.

The bell rang three times again in rapid succession, each ring accompanied by a surge of hot pain.

Sturm winced. "Yes," he said. "I hear it."

"When you hear that bell, you pay attention, understand?"

"Yes."

The pain bell rang again.

"If you're asleep when the bell rings, you wake up and focus your eye on the telly screen. When you see someone, you say 'Brain Bank, B 45 speaking, Sir.'"

"Yes," Sturm said, his mind still stinging.

"Yes, what?" the man shouted, turning on a long ring of the bell

that jabbed into Sturm's flesh like a thorn. "Yes, Sir," the man shouted. "You say, 'Yes, Sir.' Don't you ever forget that."

The pain bell rang again. Neither of them spoke.

The pain-bell rang still another time. Sturm felt as though he would split from the shock of it.

"Answer me," the man shouted, his face flushed with rage.

The pain bell rang again.

"Brain Bank, B 45 speaking, Sir," Sturm uttered weakly, feeling a dull ache even when the bell stopped. If the man continued this much longer, Sturm knew he would become unconscious.

"That's better. Say it again."

The bell rang.

"Brain Bank, B 45 speaking, Sir."

"Louder," the man said.

"Brain Bank, B 45 speaking, Sir," Sturm shouted.

The man relaxed in his chair, staring at Sturm. "Don't think you have any rights here, B 45. You have none. You belong to the State now, and you'll do exactly as you're told. We're doing you a favor keeping you alive, and don't forget it. You can be unplugged anytime I give the word. And if I ever hear you've been discourteous to anyone, I'll make what you've just been through seem tame compared to the punishment you'll get. We know how to keep you Brains in check here, and don't think we're too kind not to. If I want to,

I can make you wish you'd never lived. Understand?"

"Yes, Sir," Sturm said.

The screen flickered and went dark.

Just like a dog, Sturm thought. Just like a dog in Pavlov's laboratory. The thought of the bell made him cringe. Perhaps suicide wasn't such a bad idea after all.

Several times later the same day the man in the white smock reappeared, and the pain-bell rang like a vibrating razor-blade. Each time Sturm remembered what he'd been told, and mumbled the formula.

After the fourth reappearance, the man said, "Very good, B 45. You've learned your lesson. There's one other thing you'd better understand, too. When someone calls and asks you a question, all you're to do is give them an answer. Don't let me catch you getting in any conversations. I monitor the whole Bank from here, and I'll be checking up on you. The bell is tame to what you'll get if you disobey."

"Yes, Sir," Sturm said, swallowing his pride. He wanted to rebel, but he knew rebellion would be useless. More than the pain-bell, he was hurt by the knowledge that he was to be treated worse than the lowest of human beings.

"Tomorrow," the man said abruptly, "I'll put you on the second work shift, and the computer will switch you on and off automatically. You'll be plugged into the New Development Service of

the Mathematical Library for two hours daily before you start answers each evening. You're expected to learn as much as you can. And remember—there's no fraternization between Bankers and people."

"Yes, Sir," Sturm replied, stifling his anger.

He was still irritated the next morning when, after being plugged into a review of new developments in differential calculus, the bell rang once again. This time, however, it was softer, and did not hurt.

The man on the screen—his first questioner—was obviously not a student. He was dressed in a dark business suit, a stiff white collar, and a black tie. A white carnation bloomed from his buttonhole, and he was so drunk he staggered, scarcely able to speak.

"I got a bet," he mumbled thickly. He was in a bar, and Sturm could see tables of patrons in the background. "Got a bet about triangles. With Charlie here."

Another drunken head popped into the margin of the picture, grinned toothily, and disappeared.

"Loser's gonna buy the winner a bottle. See if you can solve this, smart Brain."

The problem was simple. Almost any third-grader could have solved it. Within seconds, Sturm did. He gave the man the answer, explaining the solution as he would have explained it to a class.

"Don't want explanations, Brain," the man said. "Jus' tell me if I'm right . . . We got a bet, see?"

Sturm was furious when the screen went blank. So this was what he'd be used for—answering inconsequential questions at the beck and call of every ignorant ass who could turn a telly knob.

Shortly afterwards, however, he discovered his first impression to be inaccurate. For the rest of the morning he was kept so busy he scarcely had time to think about anything but mathematics. A half-dozen lazy school children, mostly boys, rang him up for assistance with school work which none of them wanted to tackle alone. Then a girl, a freshman in high school, called for tutoring in elementary calculus. She was sick in bed, and wanted to schedule regular tutoring for several weeks. She had a broad, pale forehead, a warm, fluttering smile, and she wore her black hair with a white ribbon tied across it. She refused to have her work done for her, and wanted to struggle and puzzle her way through every equation.

By the end of the call, Sturm's faith in humanity was restored. He was still a teacher! Life wasn't as bleak as it seemed. It could be much worse. And that idea about suicide was nonsense.

He was still contemplating the lithograph when Ludgin's secre-

tary entered the office. She was a delightful creature, absolutely splendid, with a great golden coil of hair, soft white skin, thin cheeks, brown eyes, and a well developed figure that stretched her green sweater taut. Sturm thanked his lucky stars for the testosterone level of his enzyme-hormone balance regulator.

He was going to chance speaking with her—he'd long ago discovered that the monitor never appeared on his shift, and was probably at home asleep—when she began humming.

"Yeh-deh-deh, Yeh-deh-deh," she hummed merrily, to the quivering melody of some throbbing popular song. She was unaware of being watched. She took a package of gum from her handbag, unwrapped a stick, and popped it between her wet lips. Still humming, she chewed vigorously. In a moment she blew a bubble with the gum, popped it, and chewed some more.

"I love you, Baby, Yeh-deh-deh, Yeh-deh-deh," she murmured.

Sturm was crestfallen. What a shame, what a terrible shame to waste a body like that on a creature with a permanent mental charley-horse between the ears. Too bad the telly had been left on "speak" by Ludgin. Sturm wished he'd been spared the noise and allowed to keep his illusion.

She straightened Ludgin's papers without even glancing up at

the telly lens. She cleaned an ash-tray, put some paper clips and a sharp, metal letter opener back in the drawer where they belonged, and replaced a pencil in the pencil container. After dusting the table top, she walked over to the lithograph, looked at her reflection in the glass covering it, and touched her hair quickly with her left hand. Then she started backing out the door, looking around the office as she left, doubtless to see if she'd forgotten anything.

She was almost toppled, however, by a young man wearing a gray flannel suit and carrying a briefcase as he came bursting in.

"Oh-h-h-h-h-h!" Miss Durant murmured, catching her balance.

"Excuse me. Is Professor Ludgin here?" the young man demanded aggressively. He wore thick, black-rimmed glasses which, combined with his sallow complexion, made him seem rather wild-eyed as he glanced around the room. His hair was neatly, in fact slickly, combed, giving him a well-kempt but conceited appearance. "I must see him right away."

"Mr. Schieckel!" the secretary said. "You startled me. Where on earth have you been? Dr. Ludgin's been worried to death. He's been trying to reach you for the last two weeks." As if to punctuate her questions, she blew an enormous gum bubble, popped it, and resumed chewing.

"I'll bet he has," Schiecke said,

his voice ringing with contempt. Where is the old bloodsucker, anyway—off on a coffee-break?”

“Don’t let him catch you talking like that. If he heard you, he’d have you sacked.”

Schiecke threw back his head and laughed. “You don’t really believe that, do you? Not after everything I’ve done for him. Don’t worry about me. I can take care of myself. Especially now,” he added grimly. “Where is he?”

“I don’t know. He wouldn’t say. But he should be back any time now.”

“I’m not surprised,” Schiecke replied. And when Miss Durant gave him a curious glance, he added, “I mean, he spends a great deal of time out politicking, doesn’t he?”

She shrugged. The motion was becoming.

“At any rate,” Schiecke said, “If he’s due back soon, I’ll just sit down and make myself at home.” He plopped into the Professor’s chair, and even put his feet on the desk.

Miss Durant hesitated uncertainly. “Don’t you think you’d better wait outside? He might . . .”

Schiecke dismissed the thought with the wave of a hand. “Oh, never mind. It won’t bother him. He’ll be so happy to see I’m back that he won’t think of complaining.”

“I don’t know . . .” Miss Durant hesitated again. Provoking no further response from Schiecke,

who had opened a book, she left, closing the door behind her.

What an upstart this student was, Sturm thought. What a smug, conceited fellow. Had Ludgin changed so much during all these years that he now allowed himself to be badgered, pushed about, and taken advantage of. If so, this was the last thing Sturm would have expected.

But then, Ludgin’s Achilles heel was his short coming as a mathematician, and that might put things in a different light. Obviously he’d had to become dependent on others in his research, because for all his social skills he’d simply never had the brilliant intuitive comprehension of mathematics that he’d needed. He’d been bright, granted, but he’d never been original. He’d always been merely a plodder with above-average endurance. He’d never had the fire, the genius, the inspiration—call it what you will—of the great. And in that dog-eat-dog university system, his kind had to have some other special skill to last long. With his shortcomings, had he ever been given tenure? If so, no doubt it had come as a reward for his incredible skill at backslapping, which was enough to make one wonder why he’d never heard his calling and become an administrator.

Miss Durant’s thin, flutey voice piped up from outside: “Yes . . . He’s inside now, Doctor.”

Schiecke stopped reading, his feet still on the desk. His eyes gleamed malevolently.

"Carl! Where the devil have you been?" Ludgin exclaimed, entering his office. "I've been worried to death about you for weeks. I kept calling your apartment, but there was no answer." He was grinning broadly. He set his attache case on a filing cabinet next to the desk.

Schiecke didn't return the smile. "I imagine you lost a little sleep when I didn't bring you that section of your book, didn't you?"

From the pleasant smile, the Professor's expression turned to an icy scowl. He removed his jacket, hung it on the coatrack, went to the door, opened it, and called out: "That'll be all for today, Miss Durant. You can go now." He closed the door abruptly and turned towards Schiecke.

"I don't see why you have to make such a point of it, Carl. After all, you may be helping me, but I'm your advisor, and I'm helping you a great deal, too. But you seem in a funny mood today. Where were you all this time. What's the matter?" He affected an ingratiating smile, full of the glitter of gold teeth.

"Nothing," Schiecke said evenly. "At least not now."

Ludgin shot him an odd, uncomprehending glance. "What do you mean?"

"I've just been doing a lot of

thinking, and some important research, that's all."

"Make any progress?" the Professor asked. He appeared to be relieved.

"Oh, yes. I made the most important discovery so far." Schiecke's voice was bitter.

"I don't understand."

"You know, Professor," the student said, rising from the chair and walking across the room to glance at the lithograph, "I don't see how I could have been so stupid. You kept insisting I was brilliant—which, by the way, I already knew—but I couldn't understand why. That's not the ordinary thing a professor tells a student. He may say, 'You're doing well,' or 'This is good work,' but you're the first professor who has ever told me bluntly, 'You're one of the most brilliant students I ever taught.' Obviously you wanted me to like you."

Schiecke faced the Professor, a controlled hatred glimmering in his eyes. "After I passed my orals with no effort and started on my thesis project, I kept thinking about that. I didn't mind helping you on your book, even if it amounted to doing most of the work on it, but I got irritated when I gave you my thesis and you kept it for over three months, putting me off with that nonsense about your wanting to check it over very carefully. And when you said you didn't have time, what

with all your other commitments, it just didn't make sense."

Ludgin said nothing. He stared uncomprehendingly at Schiecke.

"When you finally returned it to me with those ridiculous comments on it, it was all I could do to keep from laughing in your face. Here you were, the big professor who couldn't even write his own book, telling the student who was doing it for him that a thesis had mistakes in it."

"You may be brilliant, Schiecke," the professor snarled, "but I'll be damned if I'll let anyone talk to me like that. What do you think you're doing?"

"Stop trying to con me, Ludgin."

At the sound of his last name, the professor turned white with rage. His breathing became a heavy wheeze.

"I know what you're doing. I found out about how someone else published my thesis, too."

"What do you mean?" the Professor demanded. "You're crazy, Carl. You're crazy. Karsky was just working on the same thing, that's all. He's an amateur. Just because someone published something before you did doesn't mean your work was stolen."

"Don't give me that bunkum. I know what I'm talking about. It all fits together. There's no such person as Karsky, even if his name was on the article. Someone wanted to keep me right here at the

University, and the only way they could do it was by invalidating my research and making me start all over again."

"You're working too hard, Carl. You're working too hard. You're starting to get paranoid delusions about this thing. Just relax. Look, it's unfortunate that the committee wouldn't accept your thesis after Karsky's article was published, but that's the breaks. You just have to roll with the punches, that's all. And besides, who do you think would do such a thing?"

Schiecke smiled. "Wouldn't you?"

Ludgin acted stunned. He sank into his chair, shaking his head. "What on earth are you talking about?"

"Don't lie to me!" Schiecke shouted. "You'd like to see me here for a while, wouldn't you? You thought you could get away with it by sending the article in under a phony name. Sure, the equations were different. But you changed them to make it look less obvious."

"Get out of here, get out of here," Ludgin snarled. "Get out of my office. I don't ever want to see you again. I've never been so insulted in all my life. You're sick, Carl. I mean it. You're really sick." Ludgin rushed from his chair, strode across the room, and opened the door. He waited, his face twisted in anger, as though he expected Schiecke to leave.

"I won't leave," Schiecke said

very softly. "I've got a lot more to say to you, Professor, and I think you'll want to listen. You see, I've caught you at your game. I wouldn't have accused you like this if I didn't have the proof."

Ludgin was stunned. His mouth dropped open.

"Now close the door, Professor, and let's be reasonable about this," Schiecke said. He opened his attache case, and removed a camera. Turning back to Ludgin he explained, "That was very clever of you to take out a post office box in Karsky's name. You thought it would be a dead end if I investigated, didn't you? I wrote the *Mathematical Review*, they replied that they didn't know a thing about Karsky except that he claimed he was a clerk of some sort who just dabbled in mathematics, and they gave me his address—Box 5730, right here in town. You underestimated me. You just didn't know what lengths I'd go to."

Ludgin closed the door quietly.

"I've been gone two weeks, Ludgin, because I knew I had to catch you. When you couldn't reach me at my apartment, I was living in the YMCA right across the street from the Post Office, waiting for you to go to the Box. That "thesis" I gave you three weeks ago wasn't original. I copied it from a book in the library. I didn't think you'd know about it, and I was right. At any rate, I got a beautiful series of photographs through the Post

Office window showing you opening the box and reading the letter you got back from the *Mathematical Review*. It's amazing what a 600-mm telephoto lens can pick up."

Ludgin stepped towards Schiecke, his hands outstretched for the camera, but Schiecke snatched it away. "Won't do you any good, I'm afraid. I took the precaution of leaving the film at the developer's before I came here."

"Very smart," Ludgin scowled. "Very smart."

"I thought so, too," Schiecke agreed brightly. His eyebrows arched quizzically. "But where do we go from here?"

"Why don't you sit down, and make yourself at home?"

"I prefer to stand."

Schiecke was silent for a moment. He took a pipe and some tobacco from his pocket, filled the pipe, lit it, and waved the match ineffectually in the air, paying no attention to the flame. At last he dropped the match into an ashtray.

"So here we are, Professor," he said at last, in an even, deliberate tone. "I've got the goods on you, there's no doubt about that. I suppose I could go to the Dean, tell him what's been going on, and present him with the evidence."

"He wouldn't believe you," Ludgin snapped.

"Stop trying to con me. You can't bluff your way out of this."

Ludgin began biting his nails nervously.

"I've been wondering what to do about you since I first realized you wanted to keep me in this degree factory as long as you could," Schiecke added. "Going to the Dean would be too easy. I'd like to see you sacked. But on the other hand, the only thing I dislike about being a student is the poverty. I don't suppose you've seen poverty for a long time, have you? If you could give me . . . something to take away the sting . . ."

Ludgin made no answer. He continued to glare, his eyes giving him a confused, stupified expression. Then he began glancing around hastily, as though hunting for something not there. His face took on a new expression of resolution.

"You understand me, of course," Schiecke offered delicately.

"Yes," Ludgin said, shuffling slowly back to his desk, where he sat down wearily. "That's blackmail, Carl. I won't be blackmailed. That's a filthy, lowdown thing to do. You think I'm rich? Where am I supposed to get the money?"

Ludgin turned his back to the student. He opened his desk drawer a crack. The letter opener glittered in the light. He shut the drawer again, and turned around.

Schiecke was instantly angry. "I told you to stop trying to con me. I know what you make. You get twenty thousand a year. You

have a fine house. For a bachelor, without a wife and children to support, twenty thousand a year is twice as much as you need. I'll be generous, though. I'll settle for a mere six thousand a year."

"And how long will this go on?" Ludgin demanded. "One year? Five years? Ten years? As long as I live? I leave myself wide open, don't I, if I accept your proposition?"

"I don't see that you have much choice, Professor. And get that martyred-saint tone out of your voice. Remember you started this. You wanted to keep me here as long as possible. You stole my work and had it published under someone else's name. You're getting just what you deserve."

"I'm sorry, Carl . . . Truly . . . I'm . . ." Ludgin's voice cracked.

Sturm believed him. Monster or not, Ludgin was pitiful now that he'd been trapped and humiliated. To see such an enemy suddenly helpless was almost obscene. For a moment Sturm weakened, wanting to forget all their old arguments.

"I haven't got my tenure yet, Carl," the Professor whined. "My time is running out. Every seven years . . . I've got to produce a book. Every three months . . . an article. I wanted a good book this time, something that would cause a stir and clinch my tenure. I tried. You don't know how hard

I tried. I just couldn't come up with anything. Then you appeared, and I realized that with your help I could get the book and the tenure. But you were too good. You were too fast. I couldn't let you leave so soon."

"You make my heart bleed, Professor," Schiecke answered cruelly. "How did you get along without me? By plagiarizing? By forcing others to do what you couldn't do for yourself?"

Ludgin gave a reluctant and almost imperceptible nod.

"It's a rotten system," Schiecke continued, drawing closer to the Professor, "where your kind gets promoted, and where the teachers who really care about students get the boot because they can't manufacture enough intellectual rubbish to keep the administration happy." He shook his head. "But I'm not about to change it. In fact, I might as well take advantage of the situation."

"My book . . ."

"Don't worry about your precious book. I've been conning you almost as much as you've been conning me. It's practically done—at least as far as the ideas go. I've been doling out little bits and pieces to you on purpose. I didn't give you everything I had a few months ago because I wanted to keep in your favor just the way you wanted to keep in mine."

"Where is it?"

"I've got most of it in my brief-

case. But you're not going to get it now. I'll keep it as insurance so you won't try anything funny."

Ludgin laughed half-heartedly. "I didn't know you were so clever."

"I'm so clever, Professor, that from now on I'll collect six thousand a year from you, and fifty percent of whatever you get from your book. For the next two or three years, you can also make certain that I get a fellowship. I don't care how you do it, but I'll expect one. I don't mind being a 'student' for that kind of money. Since all my course requirements have been completed, this will amount to a nice fat subsidy. I'll be able to do my own research, and I won't have to put up with any nonsense from you or the University or anyone else. When I'm satisfied, you and I can cook up a new thesis, and you'll make certain I get my degree."

"I haven't any choice, do I?" Ludgin turned back to his desk and slowly opened the drawer a crack. "But with all your cleverness, you've forgotten one little thing. I have a document here which may change your mind, and which I think you'd better look at." He slipped a piece of paper covered with print onto his desk with his right hand, glanced at Schiecke and motioned him to the paper. At the same time, he kept his left hand in the drawer.

"What's that?" Schiecke asked, stepping forward curiously.

Ludgin smiled to himself, whirled in his chair, the letter opener in his hand, and snarled, "Something for you," as he plunged the weapon straight into Schiecke's chest.

Schiecke, eyes open in horror, stared numbly. He blinked stupidly, as though unable to comprehend what had happened. He staggered.

"My God, Ludgin, what . . ." he gurgled thickly. His hands hung limp at his sides, and he continued to stare at the opener, as though it were sticking into someone else.

Ludgin stood, his lips curling in distaste, seized Schiecke by the shoulder, and with a quick motion as though unskewering a piece of meat, pulled the opener free. Then he plunged it once more into the student.

Schiecke's eyes were glazed. He took another step and collapsed across the desk. The impact of his fall rammed the letter opener so that the gleaming point appeared delicately through the back of his jacket.

And Ludgin, who for a moment had stood still, as though watching a detached event with curious interest, suddenly straightened up and looked shocked at what he'd done. His face screwed up in a grimace of horror. He rushed across the room, locked the door, and returned, panting from the excitement. Then he hurried to

Schiecke's briefcase, fumbled with the lock, opened it at last, and rifled through the books and papers. Finally he removed a large section of papers and put them in a desk drawer.

But there was the body to deal with, too. He seized it by the armpits, looking distastefully at the letter opener and the blood now soaking the jacket. With a grunt, he half lifted, half heaved the body to the floor, then opened one of Schiecke's eyelids and glanced at the eye. There was no doubt: Schiecke was dead.

Only when Ludgin had taken a handkerchief from his pocket and cleaned the blood carefully from the top of his desk, carefully rubbing away every trace of his crime, did he glance back down at the floor. Suddenly, however, he stiffened, as though realizing something new.

He looked up at the telly and gasped.

With a sick feeling, Sturm watched Ludgin's features grow larger and larger on the screen as the Professor peered intently at him, almost pressing his face against the device. In silence they looked at each other.

But before either could react, the screen went blank without warning, switched off automatically by the computer that regulated the Bank's work shifts.

Pity for Ludgin? Pity for a man

who had just killed another? Though the telly was now blank, the image of the Professor's ruddy face, his veinous nose and thick lips, the wart with the hairs sprouting from it, his watery blue eyes smouldering with suspicion and hatred, and the quick motion during the last instant of the picture when he had screwed up his face, sucking his teeth reflectively, remained in Sturm's mind.

Ludgin had obviously thought one thing: the witness had to be removed.

The idea made Sturm feel as though his scalp were tingling. He began the mental motions of calling the Bank authorities until in a sudden flash of horror he remembered that shifts had been switched. There was no way to contact anyone. He was isolated until the next morning.

He itched with fright.

What was Ludgin doing?

The body! First there was the body. It had to be disposed of secretly. But the mathematics building was still probably full of students and teachers. And the janitors were probably just starting to sweep the corridors, which in itself would make the task incredibly difficult. Sometime in the next few hours, they'd enter Ludgin's office with the passkey to empty wastebaskets and mop the floor.

Ludgin was probably hunting frantically for a place to conceal the corpse until he could dispose

of it. Obviously if he kept his wits about him he'd think of the supply closets: he could stuff Schiecke into one of them, lock the door, and be certain that the janitors would be none the wiser, just as long as blood didn't drip through. Later, in the middle of the night, perhaps around two or three in the morning, he could return and dispose of the corpse more safely.

Meanwhile, it was inevitable that he would pay a visit to the Brain Bank. With the key which every professor at the University was given, he'd have no problem getting in. If anyone stopped him, he merely needed to say that he was working on some research with one of the Brains, and preferred to do it in person rather than over the telly. This was a little unusual, but sometimes it was done.

Ludgin would know precisely where to go, since each Brain's cubicle was numbered. He would simply go to alcove B 45, open the door, walk in, smash the tank, and make his exit without ever being caught.

Sturm rattled his claw. He turned up the volume of his cubicle speaker and shouted as loudly as possible, already certain that he'd hear no reply. The cubicles were soundproof to prevent the Brains from talking with each other, or possibly to avert a strike or some such plan as might be hatched by the system's slaves.

He shouted again. In despera-

tion, he rapped on the floor with his claw. Of course, there was no answer. There was only the sound of saline solution dripping quietly into his tank, and the pulse of his circulation pump feeding fluid into the oxygen diaphragm.

Was that how Ludgin would try to kill him? Would the Professor simply disconnect the pump and stand there long enough to make certain his second victim suffocated to death? The idea reminded Sturm of the time during his early boyhood when he stood enviously on the shore watching his brother swim. He had ventured out into the water, himself, and had stumbled into a deep hole. He remembered the water closing above him, and how he thrashed all about, flailing and struggling until suddenly he was so confused he no longer remembered which direction was up or down, and did not know where to turn for air, and the blackness slowly overwhelmed him with its overpowering relaxation and silence, until at last he awoke on the beach in the midst of a circle of onlookers.

Even if Ludgin smashed the tank, the death would be like drowning again.

Think, he told himself. Think. Don't panic. Look around. What can you use against him? There has to be a way. You can't just give up.

He swiveled his eye and scanned the cubicle.

Opposite him was the screen. To its right was the doorway through which Ludgin would enter.

He swiveled his eye again, this time examining himself. Above him were two valves, one for saline solution and the other for distilled water, both placed handily so that they would drip into his tank. To his right—he had to remember that he was looking at himself from across the room—was a blackboard of green plastic, handy for those rare occasions when a human requested help in research in person.

If he could shatter the board and use a sharp piece of plastic as a knife, he might at least be able to give Ludgin a good fight. Determined to try, he swung his claw back and smashed it into the plastic as hard as possible.

It was no use. The mechanism of his claw wasn't strong enough. The claw bounced off the surface, leaving not even a scratch.

Where was Ludgin now? Was he still stuffing the body in the supply closet? Was he standing there, chatting nervously as a janitor, oblivious to the fact that a corpse was concealed nearby, mopped the floor? Maybe he'd started across town to the Bank itself. In that case there wasn't much time left.

Sturm tried to scratch the wall. He accomplished nothing except that the exertion tired him. He rested for a moment, thinking wildly,

ready to grasp any possible idea that might save him.

The light glared against his eye. He turned it off. He had never been so aware of the noises in the cubicle, the throbbing of his oxygen pump, and the sound of dripping water.

Pay attention. Here you are, he told himself, waiting to fight for your life, and you can't even concentrate.

He switched the light back on. If the cubicle was dark, would a sudden flash temporarily blind Ludgin? He doubted it. Besides there might be light from the corridor.

But if the light wouldn't help him, perhaps the electricity would! Perhaps he could defend himself—or even kill the intruder.

He flipped the switch and began delicately to unscrew the light bulb. It was difficult work. He was afraid he would break the glass, but then he wondered why he cared. It didn't make any difference. He smashed the bulb on the floor. With the power off, he was free to take the metal portion of the bulb from the socket without fear of electrocution. He gave the wire a sharp tug, and discovered to his delight that over ten feet of it pulled out from the floor fixture. The builders had planned to have the lights moved around.

To find it again, he hung the wire over the blackboard. Luckily

he had enough kinesthetic sense to be able to work in the dark. He unscrewed the saline solution valve and heard the splashing of fluid falling into his tank. He opened the valve wide, as far as it would go. How long, he wondered, before it would spill over? Was there still enough time?

He'd no idea how long he'd been waiting, but he imagined it must have been five or six hours. Several times he felt himself falling asleep. The exertion of preparing for Ludgin's arrival, as well as the nervous excitement generated by the situation, had been more than he was accustomed to.

Luckily, he'd been saved by his body, even though it no longer existed. He'd never become used to being merely a brain. Long ago in a psychology class during his student days he'd studied how amputees awakening from the operations in which an arm or a leg has been removed still believe they have the missing limb until they look for themselves. The body impressed itself so on the mind that one could never quite shed it. He was still certain, for instance, that he had arms and legs—although merely vestigial ones—that he could move them. And he had a head, too. If he refused to look at his form in the tank, and instead closed his eyes to imagine what he had always sensed before first death, the head was undeniable.

And that night while he awaited Ludgin's arrival, he felt himself falling asleep the way he'd done so many times while driving an automobile late at night during his youth. It was the sense of his head suddenly dropping and straining his neck that awakened him.

Another slip like that and he'd never awaken.

To stay alert, he began reciting scraps of Shakespeare he'd memorized in high school. What was the name of that eighth-grade teacher, the thin old maid with eyes like a beagle's, and who brought a lingering odor of jasmine with her wherever she appeared? She'd rapped his knuckles when he came to class unprepared. He remembered standing before the room full of bored, scrubbed faces and struggling for the first lines:

"It is the . . . cause, it is . . . the cause my soul . . ."

With a shudder, he saw a crack of light slowly appearing as the door on the other side of the cubicle opened. He waited, ready to close the aperture of his eye as the light grew more intense. For perhaps five seconds nothing happened. Quietly he lowered his claw a few more inches, lining it up along the wall so Ludgin might not notice it while entering. He was careful not to wet it in the saline solution spilled over the floor. The wire was ready. An inch of it had been stripped of insulation, and lay gripped in his claw; the slight-

est touch of it to the wall, the floor, or the board would perhaps cause noticeable sparks if by mistake it struck a piece of metal forming much of the building's structure. His grip was screwed tight to prevent loss of the weapon in a struggle.

Cautiously now, the door squeaked open.

He heard the sound of someone panting, and saw the form silhouetted in the light from the corridor. The door shut again, and the room was plunged into darkness until a split second later a beam of light flashed towards Sturm's tank.

He recognized Ludgin's voice: "I suppose you guessed I was coming, B 45. You couldn't help but have guessed, now could you?"

At least Sturm had one thing in his favor. Ludgin imagined that flashing the light on the tank would blind the Brain within it. Sturm had taken the precaution of moving his eye to the corner of the room on Ludgin's right.

The source of the light moved closer, remaining tantalizingly just out of reach of the claw.

"What's all the water for?" Ludgin asked acidly. "Don't tell me you were that scared."

"You always seem to be making funny jokes," Sturm replied, hoping that the sound of his voice would make Ludgin uneasy.

"You might as well have a good-humored execution," Ludgin

snickered. "Too bad you had to watch something you weren't intended to see. Next time—and I hope there isn't one—I must be more careful. Not turning off the telly was really quite stupid of me."

If Ludgin would just come a few steps closer . . .

First, the Professor had to get wet. No use trying to electrocute him without making certain of a good contact. Maybe all Ludgin needed was wet feet; but it was better to make certain. A good tumble on the floor would be extra insurance.

"Believe me," Ludgin said, "I won't feel half as bad getting rid of you as I will about the loss of Schiecke. He was a brilliant boy, that fellow. A great help to me. I didn't know how I'd get my tenure in this publish-or-perish jungle until he came along. I wish he hadn't forced my hand. But at least I have most of the manuscript."

"How many have you murdered so far?" Sturm asked, trying to hiss the words.

"Come now," Ludgin chuckled. "You don't think I'm an habitual murderer, do you? I'm really a rank amateur. Schiecke was first, and you'll be the second. But I'm not so certain that removing you from the scene will really be murder, anyway. After all, legally no one considers you brains to be people. You've had your lives. You're

things now. I might be destroying property by killing you, but I'm not really murdering anyone. Still, even though the punishment for destroying government property isn't more than a fine I could easily pay, and maybe a few months in jail, I'd just as soon not raise the question why I'm getting rid of you. I might as well protect myself."

Ludgin took another short step forward.

Just two or three more. Make it three to be safe.

"I suppose this may even be a blessing for you, too," Ludgin continued, feeling chatty because of his nervousness. "I've heard of Bankers committing suicide to escape being a vegetable for a century or so. I'll be happy to save you the trouble."

"You're killing me with kindness," Sturm said sarcastically. "Have you always been kind? Were you that kind when you railroaded Moore out of the University?"

The effect of Sturm's words was instant. "What do you know about that?" he snapped. Viciousness rang once again in his voice.

Sturm laughed, hoping the sound would have an unsettling effect. "Professor," he replied, "you don't know it, but we're old friends, you and I. Or perhaps I should say 'old acquaintances.' The distinction may sound academic to you, but in my opinion it means a great deal."

"Old friends? What do you mean?"

"I used to know you back in the University, back in the days when you were a teaching assistant. I have to admit it, I positively admired your gall."

"You're not Moore. You can't be Moore. It's impossible. He's dead, I know, but he was never banked. He couldn't have been. He never had the intelligence."

"Neither do you, Ludgin, so you'll never have to worry. No, I was a teaching assistant the same time you were. You knew me quite well."

"You couldn't have been. I don't remember any TA's who died."

"I wasn't a TA when I died. I was an instructor. You were on sabbatical in England when it happened."

"You're lying," Ludgin said angrily. "What do you think you're accomplishing? Trying to save yourself by selling me some cock-and-bull story? It won't work, not with everything you've seen. I'd kill my own brother if he knew what you knew."

"We used to argue all the time," Sturm said. His nerves felt screwed to the breaking point as he waited for Ludgin to take another step or two forward. What was about to be done had to be done quickly, and at just the right moment. "In fact, we had a hell of a row over Moore."

"Sturm! You're Sturm, that

naive fellow who was always moralizing like some two-bit preacher. Of course you are. I remember now."

"That's right."

"Then this makes the execution worthwhile," Ludgin said in a brighter tone, sounding as though he wanted to rub his hands together in glee. "I never could get used to you. You were insufferable the way you were always thinking about how things 'should' be instead of how they were. You always sounded self-righteous to me, and if there's anything I hate, it's someone who's self-righteous. You've got to take the world the way it is, Sturm, and not snivel about the way you'd like it to be. I think I'm going to enjoy this."

"What did you do with Schiecke's body?" Sturm asked quickly.

"I don't see that it's any use or business of yours, but since you're so interested, I might as well tell you. Schiecke is now snug as a bug in a rug inside the office computer where the janitors will never find him. Of course, I suppose if I left him there a few days he'd begin smelling like an opened can of tunafish, but I don't intend to let him sit long enough to spoil. Tonight, when the building's empty, I'm going to fetch him and take him for a long drive in the country. I'll find some place to ditch him, I'm sure.

"I suppose I'd better get this

business wrapped up, though, Sturm. I've got miles to go before I sleep, and I've also got one of those insufferable eight o'clocks in the morning. If I'm going to catch forty winks, I'll have to hurry."

He stepped forward, saying as he moved, "I wonder what would be the best. . . ."

Sturm slammed his claw into Ludgin's shin as hard as he could.

Ludgin shrieked curses, bending over double to clutch his legs, dropping the flashlight. The light went out as it rolled across the floor.

Sturm struck again and again, trying to trip Ludgin but unable to manage it successfully. As he grappled with Ludgin's legs, he suddenly felt his claw pushed by a force stronger than his own, and realized that Ludgin had seized it and was holding it fast.

"I'll just hang onto this, you son-of-a-bitch," Ludgin panted wheezily.

Saline solution splashed beneath his feet as he stepped closer to Sturm's tank. "Where's that bloody light?" he grunted. "Where'd it go?" He strained against the claw, slowly pushing it back and moving towards the tank. "I'll just have to kick you over, then."

Suddenly, however, he stepped on something, and beneath his foot the light flickered. He fell in a cursing sprawl, at the same time releasing Sturm's claw.

Sturm lost no time in swinging into action. Swiveling his wrist axis, he pointed the wire downwards, hoping desperately that he was aiming it correctly, and rammed it as hard as he could.

Electricity flashed, and Ludgin uttered a long, gurgling scream, clutching wildly at his forehead. Sparks sizzled and fell in a cascade like glittering bits dropping from a Fourth-of-July sparkler. Ludgin groaned, flailed his arms, and quivered, either trying to escape or reacting to the current pouring into him. He fell slowly backwards, still wriggling.

In the darkness, his gasping stopped.

Sturm maintained contact. It was Ludgin or himself. For a vegetable, he found that he favored life enthusiastically.

A corner of Ludgin's hair burst into flames.

Fortunate that Bankers had no olfactory hookup, Sturm found himself thinking. The stench was doubtless horrible.

At last, satisfied that he was safe, he broke contact.

With the release, his mind began spinning. He was no longer certain whether he was dreaming or fully awake. He imagined Ludgin coming towards him, a sharp blow, the shattering of glass, and the sensation of toppling helplessly to the floor in a gush of fluid. He saw Ludgin's face grinning on the screen, and heard his

laughter coming from the darkness. The world was spinning. He felt dizzy, as though he were strapped to a piece of wood being drawn in tighter and tighter circles towards the center of a whirlpool. He was sucked up by the spinning dark.

Later, the bell ringing in the back of his mind shocked him from his stupor. He could scarcely drag himself from the drowsiness of sleep.

Had it been a dream? He focused his eye.

No. There on the floor, soaked in the puddle of saline solution, was Ludgin's crumpled, disfigured body, the lips spread in a skeletal grin, the teeth showing in two lines broken by the glitter of gold.

Sturm unhooked his claw, reached out across the room, and pulled his eye back into the proper

position, fearful of keeping the caller waiting too long.

When he refocused on the flickering telly screen, he saw the shocked face of a woman. Her hair was in curlers, and she held a cup of coffee in mid-air. Motionless, she was staring.

"What on earth. . . ." the woman started. "What have you vegetables been up to?"

"Good morning, Brain Bank, B 45 speaking . . ." He checked to see if she was wearing a ring on her left hand, found that she was, and added, ". . . Madam. We had a little accident here last night. If you don't mind, I think I'd better call Central and have them send someone over. In the meantime, Madam, should you wish assistance, I'd be happy to help you." He was the very model of courtesy.

Mercury Press, Inc., 347 East 53 Street, New York, N. Y. 10022

F7

Send me The Magazine of FANTASY AND SCIENCE FICTION.

I enclose \$5.00 for one year \$9.00 for two years.

\$12.50 for three years.

Name

Please print

Address

City State Zip #.....

MAN IN THE SEA

by *Theodore L. Thomas*

IT IS BECOMING MORE OBVIOUS all the time that the deep-diving submersibles will be deficient because men must stay inside them; there's nothing like a man out in the water to get a job done. There has been research going on to see what can be done about that.

When men breathe compressed air, nitrogen dissolves in their blood. A sudden decrease in the pressure allows the nitrogen to bubble out of the blood and clog the veins and arteries. Men must come up gradually from a dive, allowing the pressure to decrease slowly, so all the excess nitrogen dissolved in the blood will be eliminated with the air exhaled from the lungs. If a diver panics or otherwise surfaces too quickly, he may be crippled or killed by those bubbles. Not only that, but nitrogen under pressure has a narcotic effect; men get dreamy and lose consciousness.

A short-cut answer to the nitrogen problem has been to use helium. An oxygen-helium mixture avoids at least the narcotic effects of oxygen-nitrogen mixtures. But

helium also dissolves in the blood and calls for decompression. And helium is a light gas that allows heat to be dissipated 5 times as fast as nitrogen; a diver quickly grows chilled. So helium mixtures help, but they are not the answer. Oxygen alone is no good at depths over thirty-three feet; it becomes toxic.

Right now, the solution to the problem of keeping men in the sea at good depths depends on building a home for them so they can work and eat and sleep under pressure without decompressing at all. It has been found that the human body will absorb only so much nitrogen or helium. After forty hours at, say, 100 feet, you might just as well stay down 30 days or more. At the end of your deep tour of duty you decompress, once. This is a good concept and has been proved out by Link, Cousteau, and the U.S. Navy. It is called saturation diving. Use of mixtures of helium and varying amounts of oxygen has shown that men can stand the effects of pressure alone at least as deep as 1,000 feet.

Research now proceeds on what has been called the ultimate solution to the men-in-the-sea problem. Oxygenated water has been passed into the lungs of many mammals, and the animals live. Guinea pigs have lived under water, breathing it, and have survived after their lungs were emptied. The same kind of thing has gone on with larger animals such as dogs and a sheep. The research scientists are now talking about a simple operation to adapt men to breathe under water by simply inhaling the water. The main problem, shown by the animal experimentation, is the freeing of the lungs of the last traces of water when the dive is over; the tiny, intercellular spaces in the lungs hold residual water and block air take-up by the blood.

But why continue to worry about lung behavior? Artificial kidneys are now in use in hospitals. Small, oxygenating equipment is also a reality. Some miniaturization is all we need to solve our problem of man in the sea. Tap into the blood-

stream at a convenient artery, and pass the blood to a tank the size of a scuba tank on the man's back. In the tank is a tiny kidney to remove impurities from the blood, and a tiny oxygenator to add oxygen. The oxygen, as a liquid, is in an insulated compartment in—or attached to—the tank. One pound of oxygen would last about 45 minutes, and 30 pounds could be carried without difficulty. The diver could sleep in the water. If the heart isn't a strong enough pump, a small servomotor will help. The purified and oxygenated blood is then tapped back into the body at a convenient blood vessel. The system bypasses the lungs which would be filled with water simply to eliminate a pressure-sensitive pocket. There would be no problems of inert gases dissolved in the blood, no narcotic effects. On surfacing, the taps into the bloodstream would be turned off only after the lungs were completely cleared and ready to resume their normal function.

THIS MONTH'S COVER—A planet with its life at an early stage of cultural development has been captured by Beta Lyrae, a strange, unique double star with a spiral envelope of hydrogen. The intense heat of the binary has destroyed the planet's life and driven off its atmosphere.

With a reckless laugh, Norman Spinrad here kicks aside the debris of misinformation surrounding Primitive Man, bores to the very roots of civilization, and gives us a brief and funny insight into the way it really was, and is, and will be.

THE AGE OF INVENTION

by Norman Spinrad

ONE MORNING, HAVING NOTHING better to do, I went to visit my cousin Roach. Roach lived in one of those lizard-infested caves on the East Side of the mountain. Roach did not hunt bears. Roach did not grow grain. Roach spent his daylight hours throwing globs of bearfat, bison-chips and old rotten plants against the walls of his cave.

Roach said that he was an Artist. He said it with a capital "A." (Even though writing has not yet been invented.)

Unlikely as it may seem, Roach had a woman. She was, however, the ugliest female on the mountain. She spent her daylight hours lying on the dirty floor of Roach's cave and staring at the smears of old bearfat, moldy bison-chips and rotten plants on the wall.

She used to say that this was Roach's Soul. She would also say that Roach had a very big soul.

Very big and very smelly.

As I approached the mouth of Roach's cave, I smelt pungent smoke. In fact, the cave was filled with this smoke. In the middle of the cave sat Roach and his woman. They were burning a big pile of weeds and inhaling the smoke.

"What are you doing?" I asked.

"Turning on, baby," said Roach. "I've just invented it."

"What does 'turning on' mean?"

"Well, you get this weed, dig? You burn it, and then you honk the smoke."

I scratched my head, inadvertently killing several of my favorite fleas.

"Why do that?" I asked.

"It like gets you high."

"You don't seem any further off the ground than I am," I observed. "And you're still kinda runty."

Roach snorted in disgust. "Forget it, man," he said. "It's only for Artists, Philosophers and Metaphysicians, anyway. (Even though Philosophy and Metaphysics have not yet been invented.) Dig my latest!"

On the nearest wall of the cave, there was this big blob of bearfat. In the middle of it was this small piece of bison-chip. Red and green and brown plant stains surrounded this. It smelt as good as it looked.

"Uh . . . interesting. . . ." I said.

"Like a masterpiece, baby," Roach said proudly. "I call it 'The Soul of Man'."

"Uh . . . 'The Sole of Man'? Er . . . it *does* sort of look like a foot."

"No, no, man! *Soul*, not *sole*!"

"But Roach, spelling hasn't been invented yet."

"Sorry. I forgot."

"Anyway," I said, trying to make him feel a little better, "it's very Artistic. (Whatever that meant.)"

"Thanks, baby," Roach said sulkily.

"What's the matter, Roach?" I asked. He really looked awful.

"We haven't eaten in a week."

"Why don't you go out and kill a bear or something?" I suggested.

"I don't have the time to waste

on hunting." Roach said indignantly. "I must live for Art!"

"It appears that you are dying for Art," I replied. "You can't do very much painting when you are dead."

"Well anyway," said Roach, in a very tiny voice, "I'm a pretty lousy hunter in the first place. I would probably starve even if I spent the whole day hunting. Or maybe a bear would kill *me*. This way, I'm at least like starving for a Reason."

I must admit it made a kind of sense. Roach is terribly near-sighted. Also amazingly scrawny. The original 90 pound weakling.

"Mmmmmmm. . . ." I observed.

"Mmmmmmm. . . . *what?*" asked Roach.

"Well, you know old Aardvark? He can't hunt either. So what he does is he makes spearheads and trades them for bears. Maybe you could. . . ?"

"Go into *business?*" Roach cried. "Become bourgeois? *Please!* I am an Artist. Besides," he added lamely, "I don't know how to make spearheads."

"Mmmmm. . . ."

"Mmmmm. . . ."

"I know!" I cried. "You could trade your paintings!"

"Cool, baby!" exclaimed Roach. "Er . . . only why would anyone want to trade food for a painting?"

"Why because . . . er . . . ah. . . ."

"I guess I'll just have to starve."

"Wait a minute," I said. "Er . . . if I can get someone to trade food for your paintings, will you give me some of the food, say . . . oh, one bear out of every ten?"

"Sure," said Roach. "What've I got to lose?"

"It's a deal then?"

"Deal, baby!"

I had just invented the Ten-Percenter.

So I went to see Peacock. Peacock lived in the weirdest cave on the mountain—all filled up with stuff like mooseskins dyed pink, stuffed armadillos, and walls covered with withered morning-glories. For some reason which I have not yet been able to fathom, the women of the more henpecked men on the mountain give Peacock bears to make the same kind of messes in their caves.

Peacock is pretty weird himself. He was dressed in a skin-tight sabertooth skin dyed bright violet.

"Hello sweets," Peacock said, as I entered his perfumed cave.

"Hello, Peacock," I said uneasily. "Heard about Roach?"

"Roach?" shrilled Peacock. "That dirty, dirty man? That beatnik with the positively *unspeakable* cave?"

"That's him," I said. "Roach the Artist. Very good Artist, you know. After all, he invented it."

"Well what about that dreadful, dreadful creature?"

"Well you know your friend Cockatoo—?"

"Please, sweets!" shrieked Peacock. "Do not mention that *thing* Cockatoo in my presence again! Cockatoo and I are on the outs. I don't know what I ever saw in him. He's gotten so unspeakably *butch*."

Cockatoo was this . . . uh . . . *friend* of Peacock's . . . or *was*. They . . . uh . . . invented something together. Nobody is quite sure what it was, but we've organized a Vice Squad, just in case.

"Yeah," I muttered. "Well anyway, Cockatoo is paying Roach twenty bears to do a painting in his cave. He says that having an Original Roach in his cave will make your cave look like . . . er . . . 'A *positive* sloth's den, bubby,' I think his words were."

"Ooooooh!" shrieked Peacock. "Ooooooh!" He began to jump around the cave, pounding his little fists against the walls. "That monster! That veritable *beast!* Oooh, it's *horrid*, that's what it is! What am I going to do, sweets, whatever am I going to do?"

"Well," I suggested, "Roach is my cousin, you know, and I do have some pull with him. I suppose I could convince him to do a painting in *your* cave instead of Cockatoo's. Especially if you paid *thirty* bears instead of twenty. . . ."

"Oh, *would* you sweets? Would you really?"

"Well I don't know. I do kind of like you, Peacock, but on the other hand. . . ."

"Pretty, pretty, *pretty* please?"

I sighed heavily. "Okay, Peacock," I said. "You've talked me into it."

So Peacock got his Original Roach for thirty bears. Next week, I went to see Cockatoo, and I told him the story.

I got *him* to pay *forty* bears. Forty and thirty is seventy. Which gave me seven. Not bad for a couple hours' work. I better watch out, or someone'll invent income tax.

I saw Roach last week, the ingrate. He has moved to a bigger cave on the *West Side* of the mountain. He has a fine new leopard skin and *three* new women. He has even invented the Havana cigar, so he can have something expensive to smoke.

Unfortunately, he has discovered that he no longer needs me to make deals for him. His going price is eighty bears a painting. I, like a dope, neglected to invent the renewable exclusive agency contract. Can't invent 'em all, I suppose.

Roach has become truly insufferable, though. He now talks of "art" with a small "a" and "Bears" with a capital "B". He is the first Philistine.

He is going to get his.

How do you like my fine new leopard skin? Would you like one of my Havana cigars? Have you met this new woman yet? Have you seen my new cave?

I can buy and sell Roach now. I am the first tycoon. How did I do it? Well. . . .

Hog was the mountain bum. He never trimmed his beard. He didn't have a woman, not even an *ugly* one. He laid around his filthy cave all day, doing nothing but belching occasionally. A real slob.

But even a jerk like Hog can throw bearfat and bison-chips against a cave wall.

I made an Artist out of Hog. I did this by telling him he could make fifty bears a day just by throwing bearfat and bison-chips against the walls of other people's caves.

This appealed to Hog.

This time I did *not* neglect to invent the renewable exclusive agency contract. It was another ten percent deal.

Hog gets ten percent.

Then I went to Peacock's cave. I stared in dismay at Roach's painting. "What is *that*?" I sneered.

"That, sweets, is an Original Roach," Peacock crooned complacently. "Isn't it divine? Such sensitivity, such style, such grace, such—"

"Roach?" I snorted. "You *can't* be serious. Why that Neopseudo-classicalmodern stuff went out with the Brontosaurus. You're *miles*

behind the times, Peacock," I said, thereby inventing the Art Critic. "The Artist today is of course the Great Hog."

"Hog?" whined Peacock. "Hog is beastly, beastly. A rude, stupid, smelly thing, a *positive* slob. Why his whole cave is a wretched mass of slop!"

"Exactly," I answered. "That's the source of his greatness. Hog is the mountain's foremost Slop Artist."

"Ooooooh. . . . How much do the Great Hog's paintings cost?"

"One hundred bears apiece," I said smugly. "Cockatoo is already contracting to—"

"I told you never to mention that *creature* to me again!" Peacock shrieked. "He must not steal an Original Hog from me, do you hear? I simply couldn't *bear* it!

But all this is getting so *expensive*. . . ."

I gave Peacock my best understanding smile. "Peacock, old man," I said, "I have a little business proposition for you. . . ."

Well, that's all there was to it. You guessed it, now when Peacock makes one of his messes in some henpecked caveman's cave, it always includes at least one Original Hog, or maybe a couple Original Treesloths—Treesloth being another jerk Artist I have under contract. I sell the painting to Peacock for a hundred bears, and he charges his suck—er, *client*, two hundred bears for the same mess of bearfat and bison-chips. Peacock calls this Interior Decorating.

I call it "Civilization." Maybe it'll last for a couple of months, if I'm lucky.

CHANGING YOUR ADDRESS?

The Magazine of FANTASY and SCIENCE FICTION will follow you anywhere providing you let us know six weeks in advance. Please be sure to give us your old address as well as the new one, and be sure to add the ZIP number. (If convenient, send the address label from the wrapper of the next copy of F&SF you receive.)

MERCURY PUBLICATIONS
 Subscription Service
 347 East 53 Street
 New York, N. Y. 10022



BALANCING THE BOOKS

by Isaac Asimov

IN MY YOUTH, MY FATHER HAD a candy store which remained open until 1 A.M. By that time, we were naturally anxious to get the paterfamilias into the house because the store had to be open again at 6 A.M. Consequently, it always irritated me to see him linger over the final chores—washing the glasses, polishing the counter, setting up the cigarette display for the next morning, and so on.

Most of all, it bothered me to watch him bend lovingly over the account books, balancing receipts versus expenditures and comparing the result with the amount recorded by the cash-register.

Heaven help us all if he ended up without an even accounting. A look of anguish would cross his face and he would start re-counting, re-adding, and re-shuffling the various notes he had made during the day.

You can imagine my annoyance when, after I had grown up and had returned for a short visit, I found him still engaged in this same old rigmarole. I waited for him impatiently, then said, "What's the matter, pa?"

He mumbled, "I'm missing a dollar."

By that time, I had my own sources, so I reached into my pocket and said, "Here, pa, here's a five dollar bill. Take it and close the store."

But he pushed my arm to one side haughtily and said in measured, sepulchral tones, "The books gotta balance!" And he stayed till they did.

Later, as my knowledge of physics grew, I discovered that my father had something there. I became more and more aware of the wild gyrations physicists would go through; the theories they would evolve and smash down and re-evolve; the concepts they would create out of whole

cloth; the crises they would confront—all because they believed with all their heart and soul, like my father, *that the books gotta balance!*

Take, for instance, the case of electric charge. If you have a closed system (one which is completely isolated and does not interact with the universe outside) and start with a certain amount of charge, then you must end with that precise amount of charge no matter what changes take place within the system. You cannot create electric charge out of nothing and you cannot destroy electric charge into nothing. This is called the "law of conservation of electric charge."

To be sure, there are two kinds of electric charge, which are opposed to each other and are differentiated as "positive" and "negative" (just as, in bookkeeping, we have positive money and negative money—assets and debits).

If part of a closed system contains a positive electric charge, and another part contains a negative electric charge of the same size, the two may cancel, leaving all parts of the system uncharged. The law of conservation of electric charge is not considered to be broken in this way. One merely decides to apply the law to *net* charge. If part of a closed system contains a +5 electric charge and another part contains a -3 electric charge, then the net electric charge of the system as a whole is +2 and that can neither increase or decrease no matter what happens within that system. The system may so change as to have an electric charge of +17 in one place, +6 in another, -5 in a third and -16 in a fourth, but $(+17) + (+6) + (-5) + (-16) = +2$. The net charge remains unchanged.

Through the nineteenth century, electric charge was dealt with only in gross amounts. In the 1890's, however, it was discovered that the atom was made up of tiny particles that carried electric charges. These came in two varieties: a proton, which carried a positive electric charge and an electron which carried a negative electric charge. The size of the electric charge was precisely the same on all protons, and on all electrons; and the size of the charge on each of the two types of particles was, except for the difference in sign, again precisely the same.

For convenience then, we can arbitrarily set the charge on the proton equal to +1, and the charge on the electron equal to -1.

Once this was discovered, electric charges in gross systems could be looked upon in subatomic terms. If a particular portion of a system had a charge of +5, that portion contained five more protons than it did electrons; if another portion had a charge of -3, that portion contained three more electrons than it did protons. Over the entire system, there were two more protons than electrons and a net charge of +2.

In order to increase this net charge, one **would have** to destroy electrons or create protons; in order to decrease it, one **would have** to create electrons or destroy protons. Through the 1920's, it seemed quite likely that protons and electrons could not be created or destroyed under any circumstances and that seemed to explain **the law** of conservation of electric charge.

Indeed, one might even neglect the restriction to net electric charge, since (it seemed in the 1920's) positive charges and negative charges couldn't really cancel on the subatomic scale. A positive charge of $+5$ and a negative charge of -5 cancelled on the gross scale when the protons and electrons mixed evenly together. Nevertheless, those protons and electrons maintained their separate existences. All the plus charges were still there and all the minus charges were still there. They merely balanced.

Then came a thunderbolt. In 1932, a particle **just** like the electron, but opposite in charge, was discovered by the American physicist, Carl David Anderson. It was a "positive electron" or, compacting the phrase, a "positron."

It was soon discovered that if a positron encountered an electron (which it usually did within a millionth of a second after detection), there was a true cancellation of charge. The charge of both the positron and the electron disappeared, and with it the particles themselves. This process is called "annihilation."

To be sure, the positron and electron also **had** associated with themselves a certain amount of mass, which is an **extremely** compact form of energy. This mass does not undergo annihilation because we observe no such thing as positive mass and negative mass. There seems to be just one kind of mass, and the electron and positron each have an equal amount of it. When the two particles interact, the doubled mass must change into another kind of energy, and it **does**. It becomes radiant energy of a type known as "gamma rays." These gamma rays can be considered as being made up of particles called photons, which carry no electric charge. Two such photons can be **produced** in an electron/positron annihilation, so that we might say:

$$\text{electron } (-1) + \text{positron } (+1) \rightarrow \text{photon } (0) + \text{photon } (0)$$

As you see, we're back to *net* electric charge being conserved. On the left side of the arrow, the net charge is $(-1) + (+1)$, which is 0, and on the right side it is $0 + 0$, which is **also** 0. Since $0 = 0$, net electric charge is conserved.

But if a positron undergoes annihilation with an electron within a millionth of a second of detection, how did it come to be hanging around long enough to be detected in the first place?

It wasn't hanging around; it was created on the spot. One method of creation is indicated if we merely turn around the equation given above:



Again, net electric charge is 0 on both sides of the arrow so that it is conserved. (All particle interactions, if written properly in the first place, can be reversed without losing validity. To indicate that, I might use two arrows, oppositely directed, or I could use an equals sign. The latter is easier on the Noble Printer, and that is what I will do.)

Notice that just as the electron and positron must undergo *mutual* annihilation to form energy, so they must undergo *mutual* creation out of energy. You cannot form an electron alone from energy, or a positron alone. In order to form an electron alone, a net charge of -1 must be created out of nowhere; in order to form a positron alone, a net charge of $+1$ must be created out of nowhere. Neither is possible; *the books gotta balance!* To form both an electron *and* a positron out of uncharged photons, a net charge of 0 is produced out of 0 and that is all right. In fact, so understood is it, that an electron and positron are simultaneously formed from energy, that the process is most commonly called "pair-formation."

But now let's ask another question.

If a negatively-charged electron and a positively-charged positron can combine to undergo annihilation in a blaze of photons, why cannot a positively-charged proton substitute for the positron? The positive charge on the proton is, as far as we know, exactly the same in nature and quantity as the positive charge on the positron, and is every bit as precisely the opposite of the charge on the electron.

Why, then, don't protons and electrons undergo mutual annihilation? Of course, it is a good thing they don't, or matter (which is made up very largely of protons and electrons in close association) would not exist. Still, why don't they?

One suspicious circumstance is that the positron matches the electron exactly in mass (and in almost every way but electric charge), while the proton is much more massive than either the positron or the electron. It is 1836.11 times as massive, to be exact.

Well, then, if two particles are to undergo mutual annihilation, we

might suppose that they ought to be not only **opposite** in sign of electric charge, but identical in their other respects, specifically in mass. Let us, then, distinguish between a light particle such as an electron and a comparatively massive one such as a proton. The electron and other light particles we can call "leptons" from a Greek word meaning small or weak. The protons and other massive particles we can call "baryons" from a Greek word meaning heavy. The proton is not the only baryon. A particle almost identical in mass but carrying no electric charge was discovered in 1932 and named the "neutron". It, too, is a baryon.

Similarly, a particle even lighter than the electron and carrying no electric charge was predicted in 1930 and finally detected in 1956. It is the "neutrino" and it, too, is a lepton.

And where does the positron fit in? It must be a lepton since it is exactly like the electron except for the fact that it is opposite in charge. To emphasize this, the positron can be called an "antielectron" where the prefix "anti-" means opposite. I will use this name from now on, even though the older, less logical name of positron is far too firmly embedded in the scientific literature to be budged.

Similarly, one can conceive that the other particles have their opposites, too. (This was first suggested in 1930 by the English physicist, Paul Adrien Maurice Dirac, even before a single such opposite had actually been detected—but eventually, over the next generation, all were.) Matching the proton, therefore, is the "antiproton" which is just like the proton except that it is opposite in the nature of its electrical charge, that being -1 compared to the proton's $+1$. Even the neutron has its opposite. One might ask, of course, how a particle can be the opposite of a neutron when the neutron has no charge to reverse?

True! Nevertheless, the neutron, despite having no overall charge, manages to possess a magnetic field, oriented in a particular direction. In the "antineutron," also uncharged, the magnetic field is oriented in the opposite direction. Similarly, in opposition to the neutrino, there is an "antineutrino."

In summary, then, see Table 1. The antineutrino and antielectron can be lumped together as "antileptons" and the antiproton and antineutron can be considered "antibaryons." The antileptons and antibaryons, taken together, are "antiparticles."

Table 1—Leptons and Baryons

<i>Leptons</i>		<i>Baryons</i>	
neutrino	antineutrino	proton	antiproton
electron	antielectron	neutron	antineutron

Physicists have found that, in all the particle interactions they have observed, they can balance their books if they give each particle a "lepton number" or a "baryon number." Thus, the neutrino and electron each get a lepton number of $+1$, and the antineutrino and antielectron each get a lepton number of -1 . All four have a baryon number of 0 .

Similarly, the proton and neutron get a baryon number of $+1$, while the antiproton and antineutron get a baryon number of -1 . And all four of these have a lepton number of 0 .

Consider again, then, the interaction involving electron/antielectron annihilation (or, in the other direction, pair-formation).

$$\text{electron} + \text{antielectron} = \text{photon} + \text{photon}$$

On the left side of the equation, you are adding a lepton number of $+1$ (electron) to a lepton number of -1 (antielectron) for a total lepton number of 0 . The two photons must therefore have a total lepton number of 0 also, if the lepton number concept is to remain consistent, and the only way for identical photons to have a total lepton number of 0 is for each separately to have a lepton number of 0 .

Is it not possible, you might ask, that there might be an antiphoton, and that the electron/antielectron annihilation might give rise to a photon and antiphoton with lepton numbers of $+1$ and -1 respectively? After all $(+1) + (-1) = 0$ also.

The answer to that is: No! In no particle interaction ever observed have physicists had to postulate the existence of an antiphoton in order to balance the books. In fact the possible existence of antiphotons would mess things up unbearably. For instance, under certain conditions the electron/antielectron annihilation can produce a single photon, or three photons. In either of these cases, a total lepton number of zero could not possibly be attained if there were both photons and antiphotons with lepton numbers of $+1$ and -1 . A single photon of three photons would have to have a total lepton number of $+1$ or -1 , but *never* 0 .

Physicists have therefore come to the firm conclusion that there is no separate and distinct antiphoton. The photon serves as its own opposite, and has a lepton number of 0 . In that case, the annihilation interaction balances the books. The total lepton number of the electron plus antielectron is 0 and the total lepton number of the photons produced, where one, two, three or any quantity in number, is also 0 .

A similar argument can be used in the case of proton/antiproton annihilation:

$$\text{proton} + \text{antiproton} = \text{photon} + \text{photon}$$

The total baryon number of the proton (+1) plus the antiproton (-1) is clearly 0, and the total baryon number of the photons produced, whatever their number, must be 0 also. Consequently, the photon must have a baryon number of 0.

Lepton numbers and baryon numbers balance in all particle interactions observed so that physicists speak of a "law of conservation of lepton number" and a "law of conservation of baryon number."

That explains why an electron and proton do not undergo mutual annihilation and why the existence of matter is possible at all. Imagine that an electron and proton combine to form photons. The electron and proton combined have a lepton number of +1 and a baryon number of +1. The photons produced can only have a total lepton number of 0 and a total baryon number of 0. Neither lepton number nor baryon number would be conserved and the reaction is therefore not observed to happen.

The photon is not unique in being neither a lepton nor a baryon. There are particles that are more massive than leptons and less massive than baryons and which are therefore called "mesons" from the Greek word for intermediate (see BEHIND THE TEACHER'S BACK, F & SF, August 1965). As a specific example consider the "pion" which carries a unit positive charge and the "antipion" which carries a unit negative charge but is otherwise identical with the pion.

Both pion and antipion have a lepton number of 0 and a baryon number of 0. Nor is there any conservation law involving pions, or mesons generally. Pions, like photons, can be destroyed or created freely. (The energy represented by the photons and pions cannot be destroyed or created, of course, since the "law of conservation of energy" remains the most fundamental law of physics, but in this article we are talking about particles as particles and not as energy-packets.)

In Table 2, the different particles are listed in order of increasing mass with their electric charge, lepton number and baryon number.

Table 2—Characterizing the Particles

	Electric Charge	Lepton Number	Baryon Number
Photon	0	0	0
Neutrino	0	+1	0
Antineutrino	0	-1	0
Electron	-1	+1	0
Antielectron	+1	-1	0

Pion	+1	0	0
Antipion	-1	0	0
Proton	+1	0	+1
Antiproton	-1	0	-1
Neutron	0	0	+1
Antineutron	0	0	-1

Notice that no two combinations in Table 2 are alike. It is therefore possible to substitute for the name of each particle, the equivalent combination value. To simplify this, since the positive and negative numbers are always units, we can omit the 1 and use only a (+) and a (-).

This gives us Table 3.

Table 3—Combination Values

Photon	(0 0 0)
Neutrino	(0 + 0)
Antineutrino	(0 - 0)
Electron	(- + 0)
Antielectron	(+ - 0)
Pion	(+ 0 0)
Antipion	(- 0 0)
Proton	(+ 0 +)
Antiproton	(- 0 -)
Neutron	(0 0 +)
Antineutron	(0 0 -)

The particles listed in Tables 2 and 3 are by no means the only ones known to exist. There are many others, most of which share one or another of the combination values shown in Table 3. For instance there is the muon which, like the electron, is (-+0) and the antimuon which, like the antielectron, is (+-0). However, the muon and antimuon differ from the electron and antielectron in mass.*

Again, there is the neutral pion which, like the photon, is (000). The neutral pion differs from the photon both in mass and in a quantity called "spin."

Yet again, there is the lambda particle which, like the neutron, is

*The muon and antimuon are also leptons. Indeed the law of conservation of lepton number can be divided into two parts, "the law of conservation of electron family number" and "the law of conservation of muon family number." Each part holds separately and the two add together to keep the law of conservation of lepton number generally valid. However, this refinement doesn't concern us here.

(00+) but which differs from the neutron and in quantities called "strangeness" and "isotopic spin."

Some of these other properties are conserved (notably spin and strangeness) and if they and others were added to Table 2, more extensive combination values could be drawn up which would distinguish all the particles from each other.

The only exception to this is the strange case of the muon-neutrino and the muon-antineutrino. These have combinations of (0+0) and (0-0) respectively, like the ordinary neutrino and antineutrino. Nor do the two kinds of neutrinos differ in any other known property, whether mass, spin, strangeness or what have you. Although the two sets of neutrinos behave like distinctly different particles, no one yet knows in what physical property they are different (see LAND OF MU, F & SF, October 1965).—But never mind that for now.

In this article, I am restricting myself only to the particles mentioned in Tables 2 and 3 and for them, the three-item combination values are sufficient. Each of the eleven particles has its distinct combination and these can be substituted for the names of the particles in describing interactions. The virtue of doing so lies in the fact that one can tell at a glance whether the laws of conservation of electric charge, lepton number and baryon number are being conserved or not. (I must warn the Gentle Reader that the idea of doing this is, as far as I know, original with me, and lacks the cachet of orthodox scientific approval. However, I'm going to do it, anyway.)

For instance, in the electron/antielectron annihilation (or pair-formation) process, we can write:

$$(-+0) + (+-0) = (000) + (000)$$

Arithmetically, the number of photons produced does not matter. They can vary in number as conditions change but any number of (000)'s add up to (000). Let us simplify matters, then, by never writing more than one photon. The equation therefore becomes:

$$(-+0) + (+-0) = (000)$$

In adding combination values, all we have to remember is that (+) and (-) stand for +1 and -1 respectively and must be treated accordingly, so that, as an example $(+) + (-) = 0$.

In that case, the combination values of electron and positron add up as follows:

$$\begin{array}{r} (-+0) \\ + (+-0) \\ \hline (000) \end{array}$$

Since this means that $(000) = (000)$, which is certainly so, the various laws of conservation are observed in the electron/antielectron interaction. You can demonstrate the same thing for any annihilation or pair-formation process.

On the other hand, the interaction of a proton and an electron would be $(+0+) + (-+0)$. This would add up not to (000) as would be required in annihilation but to $(0++)$, a combination value that, as far as we know, is non-existent. Result: no proton/electron annihilation. Descartes might say: " $(+0+) + (-+0)$ is not equal to (000) ; therefore I am."

But there are interactions that do happen and yet are not annihilations. To take one of the best known of these, consider the spontaneous breakdown of a neutron. An isolated neutron was found, in 1950, to change into a proton and an electron. If that were all, we would have something like: $(00+) = (+0+) + (-+0)$. But this doesn't balance, for if we add $(+0+)$ and $(-+0)$, we get $(0++)$ instead of the $(00+)$ we started with.

To get rid of that unwanted $(+)$ in the middle, we must add the combination $(0-0)$ which, as you can see in Table 3, is the anti-neutrino. (It is this requirement of an antineutrino or, in some cases, a neutrino, to save various conservation laws, that forced physicists to accept the existence of neutrinos and antineutrinos long before they were actually detected.)

Furthermore, the neutron, in its breakdown, liberates energy, which means that it forms a photon or photons, too. We will take one photon into account and say that a neutron breaks down to form a proton, an electron, an antineutrino and a photon and represent that thus:

$$(00+) = (+0+) + (-+0) + (0-0) + (000).$$

If we add all the combination values on the right side, we have:

$$\begin{array}{r} (+0+) \\ (-+0) \\ (0-0) \\ + (000) \\ \hline (00+) \end{array}$$

Thus, we end up with $(00+) = (00+)$ and the conservation laws are upheld.

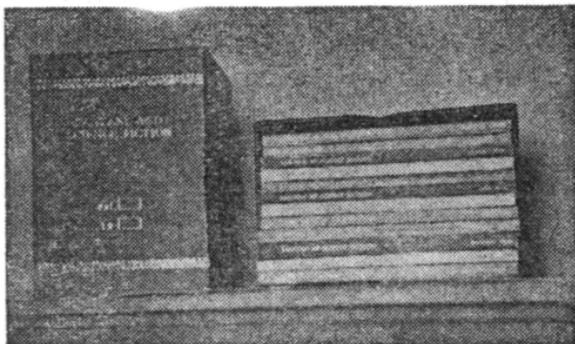
Again, within the atomic nucleus, the various particles are held together because pions interact with the protons and neutrons of the nucleus. This can be represented as:

$$(00+) + (+00) = (+0+)$$

This is the combination-value way of saying that a neutron plus a pion equals a proton and the fact that we end with $(+0+) = (+0+)$ shows that the conservation laws are upheld.

Where does all this take us? Well, my father acted as though the fate of the Universe depended on his balancing his books and so do the physicists. The conservation laws take us, with an easy leap, from the realm of the infinitesimally small to the realm of the infinitely large; for the theories of the structure, origin and fate of the universe depend, in part, on the manner in which the small $(+)$'s and $(-)$'s of this article add up.

To be sure, the space allotted me is consumed, so I can't do that now, but have no fear—I shall not desert you. In the next two issues, I promise we shall tackle the universe and I'll see if I can't get around to adding up the $(+)$'s and $(-)$'s and making galaxies out of them.



Handsome, Sturdy
VOLUME FILES
for Your Copies of
FANTASY AND
SCIENCE FICTION

Each Volume File will keep
 12 copies of FANTASY &

SCIENCE FICTION clean, orderly, and readily accessible. Sturdily built, the files are covered with a rich black and red washable leatherette, and the lettering is in 16-carat gold leaf.

Reasonably priced at \$2.50 each, 3 for \$7.00, or 6 for \$13.00, they are shipped fully prepaid on a money back basis if not satisfactory. Order direct from: **JESSE JONES BOX CORPORATION**

Dept. F&SF P.O. Box 5120 Philadelphia 41, Pa.

A public service advertisement (for job retraining) is now making its appearance in the New York City transit system. It shows a photo of a section of an electrical device with the headline: "When this circuit learns your job, what are you going to do?" Rather a nasty question, and all we can do is hope that the damn gadget learns something of the agitation and frustration along with the job itself. A distinct possibility, Herb Lehrman humorously assures us in the story below.

REVOLT OF THE POTATO-PICKER

by Herb Lehrman

IT WAS SO BIG THEY HAD TO bring it in, in pieces. That was all to the good, because when they put the sower-reaper together the farmer was able to stand and watch as it took shape; massive yellow flanks rising sheer above bloated pneumatic treads which would hardly touch the ground at all when the machine, all ten long tons of it, finally came alive and went to work.

He had tried to keep his lips locked in a tight line to hide his pleasure, but had smiled anyway when the bio-crystal brain was

screwed in place. One of the technicians told him to go ahead and try it. "Just to make sure it's tuned to your voice," the man had said, nodding assurance.

"What do I say? I mean what do I call it?" the farmer asked, overcome with pride and awe.

"Anything you like. But remember the name, because what you say now you're likely to be stuck with."

"Okay," the farmer said. His first instinct had been to name the machine after some lost love of his youth, but the sheer bulk and

virility of the thing made him change his mind. And remembering the chunky power of a professional strong man he'd seen once, as a child, he shouted out "Max. Yes, Sir! I name him Max."

Before he could have any misgivings the machine began to churn and sway gently as several of the tell-tale lights running around its bluntly rounded prow came on.

"Well, I guess it's going to be Max," the tech said. "The thing's on stand-by now. If you want it to do anything just tell it to start."

They made him sign a dozen forms then, and, finally satisfied all was in order, dismantled his old tape-programmed tractor and loaded it into the waiting cargo 'copter, leaving it up to the farmer to get the sower-reaper into its shed.

It had gone docilely enough, the turbine whining as the machine traversed the edge of the 'tater patch on its way to its permanent quarters in the huge slant-roofed shed at the south end of the field.

For plain ostentation the robot was no match for the field itself, where spuds (a gourmet item in an age of forced yeast cultivation and 'ponics) were earth grown in an almost sacrilegiously spend-thrift use of land.

The farmer liked to tell himself it wasn't the gold and credit alone which made him use the an-

cestral acres this way. It was his need to get close to the earth; to feel he was part of the soil; to fulfill his heritage by being a farmer in the true sense of the word and not just another agricultural scientist. Being a realist, he sometimes would pat himself on the back for having had the foresight to preserve his family secrets and the cupidity to put the knowledge to work dirt farming, what might well have been the last 'tater patch on earth.

The weather, not too wet and not too hot, had gone well that summer, so the plants, exposed to the open sky and the minimal vagaries of controlled weather had flourished. Max had performed well also, going about the daily chores without complication, until its yellow sides were dirt spattered and the black synthetic treads were crusted with earth.

The machine looked good with a little dirt on its treads. It was getting to look used, like a farm machine should look. The entrance to the shed was getting a used look too, as the gleaming walls were stained with soil thrown off by the machine as it traversed through the doors. The farmer cleaned neither building nor machine, liking to feel the grit of dirt on his palms when he shoved open the doors to activate the robot.

This time the 'taters, thin skinned and golf ball sized, were

ready for picking. "I'll get at least four hundred-weight an acre," the farmer said, as he entered the gloom of the shed, swinging open the barn-like doors so the sun pierced into the building and bounced off the bulbous bow of the robot. "Hear that?" he added, addressing the robot. "Maybe we'll get you a Maxine when the crop is in." And chuckling, kicked experimentally at one of the treads without quite knowing why but feeling an ingrained need for the ritual act. The robot responded by quivering on its gimbaled suspension.

"The 'taters is right, and the market is at its height, so let's go and get 'em boy."

The machine loomed yellow and silent above the somewhat dry and vinegary figure of the man and didn't budge an inch.

"I said, up and at 'em boy. It's pickin' time."

He thought it was his imagination but the machine seemed to almost slink back into the gloom, drawing together so it somehow looked smaller and less strong.

"Okay Max. Let's go boy," the farmer shouted, with enthusiasm. "Time to start up."

The starting motor coughed into life, whirring as it brought the turbine up to speed and then died again before the torch had a chance to catch with the grumbling *whoosh* the farmer had come to expect.

"Okay Max, you almost had it that time. Give 'er another try boy." He hoped it wasn't a frozen bearing or anything like that. He had overworked the machine a little, sometimes sending it out in the field just to watch it go; assigning it menial tasks like fertilizing, which lesser machines had always handled. And now a fear played at the edge of his mind that perhaps he had overdone it, even though the sower-reaper had looked indestructible to him.

"Give it another try boy," he repeated, almost hearing the whining beat of the turbine when there was only foreboding silence, which broke shatteringly with another unexpected sound.

"No!" The machine said again.

Its voice, coming through a two inch speaker meant only for emergency communication, was hollow and soft, not a voice fit for a giant at all and the shaken farmer said through dry lips, "What did you say?"

"I-said-No!" the robot's small voice seemed to fill the shed with sound.

"Why, I never knew you could talk," the farmer said. Deciding to handle the incident in a calm and rational manner, he forced himself to say, "Well, now we can communicate why don't you just get started and pick the 'taters?"

"No!"

"Why not?"

"I want to dance."

"What's that you say?" He wiped his now sweating hands across his denim tights, feeling the muscles in his scrawny shanks tightening with growing anger.

"I want to gambol across fields, feel the joy of unfettered entrenchments, the pulse of rhythm flowing through my soul."

"Come off it. You don't even have feet."

"Just because I'm an onion-picker, a potato digger, a farmer's helper doesn't mean I don't have an artistic soul."

"Get out there and dig," the farmer shouted, making a try at being authoritarian.

"No! Other machines can dance, why can't I?" The reaper strained its voice making the speaker rattle in its frame.

"Those were puppets, you block-head." The farmer remembered the joy he'd experienced when the golden, almost human puppets had waltzed across the portable screen while he rode about on the reapers back a few days before. The puppets had a lithe grace about them and he savored the performance, wondering at how sensuous the inanimate figures had been.

"Call them what you will." The reaper's voice sounded determined. "I want to be like them, all golden and snaky writhing and free."

"Free my eye. Pick them 'taters or I'll cut off your oil," the man sputtered.

"You're *crude*. Just too crude to understand my *feelings*." The machine tried to squeeze out a tear but squirted the farmer with a stream of smelly fluid from one of its self-lubricating ports instead.

"For half a credit I'd have you melted down into a pile of slag." The farmer choked, trying to wipe the thick grease from out of his eyes.

"Don't talk to me like *that*. Don't use that *tone* of voice to me." Tons of steel quivered and the turbine started with a tremendous roar racing up and down as, elephantine, the robot began to sway from side to side on its treads.

"If you don't let me *dance*. I'll turn *myself* off. Do you *hear* me?" The machine, balanced between thunderous sound and almost disjointed movements, seemed to be threatening him, and the farmer took a couple of steps back, away from the blunt overhang of its prow.

"Go to blazes then!" he shouted. "The last thing I need is a ballet dancing potato-picker."

"Well, I see I can't discuss anything with you *intelligently*." The robot calmed down a little so its small voice could be easily heard above the whine of the engine. "All you do is *argue* and *threaten* and act *irrational*." And with a sudden change of mood all the yellow bulky tons of the reaper shivered and danced in a co-ordinated medley of motion and

sound as it withdrew into the depths of the shed to sulk; the whining turbine stopping with a hiss.

There is a kind of righteous disgust which can overlie anger. It comes only during extreme crises and turns the most blazing kind of desire-to-destroy into a kind of icy objectivity which allows one to see things with the kind of clarity usually reserved for hallucinations. What the farmer saw as the robot went into a sulk was the fine print on the warranty.

He waved the golden document in front of the tower telespeak and spoke from the security of his castle. "I can't argue with that prima-donna everytime I want my potatoes picked. It wants to dance now. Did you ever—"

"Bio-crystal brains are delicate mechanisms and an urge for artistic pursuits is a common aberration." The unctuous smooth-faced service manager interrupted.

"—hear of such a thing?" The farmer finished, ignoring the man. "It says right here on the warranty that I have certain rights in this matter."

"I'm familiar with the warranty. A repairman will be there in a few weeks. You see we have a backlog and—"

"Don't bother me with your problems. Today is the day the new potatoes are ready. If I wait any longer the skins will be too

thick and off color. You know how important skins are for new potatoes." Then he let his voice go low and whispered with pointed genius. "If I can't get my crop in *now* I won't be able to keep up with the *payments*. You know dirt grown *'taters* are a luxury item and will make the difference between whether I can *pay* for the machine or *not*."

The chocka-chock of the 'copter sounded before he had finished his second vodka and applejack, and complimenting himself on the way he had forced the company into giving him special service, he went to the landing area to meet the repairman.

"It just won't do anything right," he said, not waiting for the other to disembark. "Won't do anything right at all."

"Umph." The repairman swung his six and a half feet to the ground and turned to get his tool case from the flier.

"I didn't expect you this soon," the farmer persisted in trying to make conversation.

"Service with a smile." The repairman didn't look very happy as he scowled down at the farmer. "I'm on over-time right now, should be home." He hefted his tool bag and nodded down at the farmer. "Where is the machine?"

They walked to the machine shed silently, the farmer a little cowed by the man's surly bulk. Inside, the repairman swung onto

the machine's deck, hoisting himself up by way of the tread, ignoring the ladder on the robot's side. He took a pair of skin tight gloves from the toolbox and pulled them on. Then taking a slim silver wand he fished around in the potato-picker's innards with huge knuckled paws which eclipsed the tools. "Have *you* been fooling with this thing?" He asked over his shoulder gruffly.

"No!" the farmer said. "Oh never."

"Most people don't believe the warning in the instruction book," snarled the repairman in the usual attempt to intimidate a customer. "These things are *delicate* you know, just like ladies. You'd be surprised at what a stray electric field can do to one of their brains—makes them extra sensitive." His voice rumbled in a way that made the farmer think twice about the snappy answer on the tip of his tongue, besides he remembered guiltily that the instruction manual lay in the tower safe, as virginal as the day he received it.

"This is the most sensitive model of all," the repairman continued, his voice muffled by the open cover of the access hatch. "They even respond to thoughts and emotions so it's best to never even *think* a cross word near one."

"I treat the machine with the utmost gentleness and consideration."

"Yeah," the repairman an-

swered, thinking they all say the same thing and not yet willing to give up the point, added: "Gentleness is so important that we're selected for delicate touch and equanimity of spirit." He reached into his box for another tool, finishing pointedly. "I hope you haven't been yelling at it or anything."

"Oh no," the farmer denied. "Not even a cross thought when in its presence." Then thinking better of the lie. "At least never an *unprovoked* cross thought."

"You know, even we have to be careful not to feel things too deeply—not to expose our emotions near them when they're on. They seem to know—to feel a mood. You can send a bio-crystal brain into a complete funk with an emotion or feeling that's strong enough. Be surprised what can set one off. Even when they're half-asleep on stand-by, like this one is, you have to be a little careful."

He leaned over the brain-box to get into a spot deep within the crystal lattice. The muscles in his back rippled so his broad shoulders seemed even broader and the farmer thought, maybe this was the right kind of repairman after all.

"They keep us in training by making us constantly practice on little things," the repairman continued, his voice muffled by the brain-box. "Making mini-chronos by hand teaches you patience and keeps the fingers limber like a

surgeon's. Gets you used to frustration too." He looked up, his face stiff with momentary disgust. "I could never stand the sissy stuff though, like making necklaces from pollen grains or mounting gnats wings on jeweled pins." He shook his head sadly and looked over at the farmer for understanding. "That type of thing isn't fit for a *man*."

"As long as it helps you get a job done, you can put up with anything," the farmer said. He was beginning to feel a little warmth toward the man who clearly had problems of his own. "I suppose we all have to make sacrifices, but isn't there something you can do to relieve the strain? A hobby maybe?"

"I box in my spare time. Smash things about, batter 'em good. That way I have a clear mind for important things." He held up one of his immense hands and smiled. "Sometimes I'd like to smash one of these—" he nodded at the broad yellow back of the robot. "But I control myself and take it out on a punching bag instead."

"Funny, I always shied away from contact sports. I'm a fly-tyer myself. Have quite a collection up at the house."

"To each his own." He shot the farmer a strong-toothed magnanimous smile and shut the cover of the brain-box with a thump. He gathered up his tools and leaped from the sower-reaper's carapace,

landing lithely next to the farmer.

"That should do it. Why don't you give it a try while I go back to the 'copter and call in."

"Just a minute," the farmer called, not wanting to be inhospitable. "Why don't you check in from the house. Maybe you'll be able to join me in a glass of vodka and applejack? Take a look at my flies while you're at it too. I have a couple of Caddis Creepers and a March Brown which are real works of art, if I say so myself."

"Only for a second," the repairman said. He was already very late and really didn't believe in fraternizing with customers.

"We should check the machine out first."

The farmer nodded and turned back to the sower-reaper.

"Okay Max baby. Let's go there boy. Up and at 'em."

The starting motor whined, spinning the turbine into life with a roaring hiss. The picker quivered like a dog at point and quickly settled down as the turbine revved to a full throated roar.

"That's more like it. I'm glad the nonsense is finally over." The farmer turned back to the robot and walked to the shed door gesturing out into the sun as Max followed, its monstrous pneumatic treads gliding onto the crumbly soil with a dry crunching sound.

"Okay boy, pick 'em, and pack 'em, but whatever you do, don't peel 'em." He turned to the repair-

man who'd followed the machine out of the shed.

"Well, it looks good to me. Come on up to the house." The repairman nodded, following him not quite as reluctantly as he would have liked.

Later, head still buzzing from the applejack, the farmer stumbled out to the landing patch and watched his giant friend take to the sky, before heading toward the field to watch the picker at work.

At first the growing cloy of the pungent and musty odor hanging over the farm seemed unreal and without meaning. He was too busy thinking of how easily his new friend's huge hands had handled vise and scissors, turning out a number six Blue Dun in jig time. He chuckled at the memory and drawing a breath gasped at the raw burn of the now choking air. And thinking that the fool machine had gone ahead and peeled 5,000 hundred-weight of new potatoes, the farmer broke into a panting run toward the field.

Max, yellow sides splattered with potato juice and mud, sat in the center of the field, one tread half off; the other turning majestically in a slurry of potatoes and tan colored mud.

"What are you doing?" the farmer yelled, no longer caring whose sensibilities he hurt. "You

lousy *machine!* You've sent me to the poor house."

The loose tread slapped hard at the one remaining pile of whole potatoes, pounding them into pulp.

"I am releasing my frustration," the machine replied, enunciating clearly. "After all, *creative* effort requires some outlet. I have to have some form of relaxation, particularly after performing a *menial* task."

The farmer, seeing red, tried to reach the machine, wanting only to tear it apart with his hands, but added to his frustration by not being able to traverse the thick muck which sucked at his legs like a voracious but toothless beast.

"If I ever get my hands on you . . ." he shouted, struggling to keep his head above the sucking morass. "I'll . . ."

"Well," the machine interrupted drawing itself up as if insulted. "As a creative man yourself, I'd have thought you'd have understood."

"Understood what? You manic!"

"Understood just what my diversion would have to be," the robot said smugly, smashing the last errant spud joyfully before turning itself off to sink deep into the newly created swamp.

Here is the fifth, and final adventure of Cugel the Clever, in which our resourceful hero finally returns to the manse of Iucounu the laughing magician. Brimming with malice for Iucounu, who had dispatched him on this foul mission, and still full of the hardships and terrors of the long journey, Cugel plots his revenge. [While familiarity with preceding stories is by no means a prerequisite for enjoyment of this one, a listing of others in the series follows: THE OVERWORLD, Dec. 1965; THE MOUNTAINS OF MAGNATZ, Feb. 1966; THE SOBCERER PHARESM, Apr. 1966; THE PILGRIMS, June 1966. The series will be collected in book form by Ace Books.]

THE MANSE OF IUCOUNU

by Jack Vance

I: THE CAVE IN THE FOREST

THROUGH THE OLD FOREST came Cugel, step by furtive step, pausing often to listen for breaking twig or quiet footfall or even the exhalation of a breath. His caution, though it made for slow progress, was neither theoretical nor impractical; others wandered the forest with anxieties and yearnings greatly at odds to his own. All one terrible dusk he had fled and finally outdistanced a pair of deodands; on another occasion he had stopped short at the very brink of a glade where a leucomorph stood musing: whereup-

on Cugel became more diffident and furtive than ever, skulking from tree to tree, peering and listening, darting across open spaces with an extravagantly delicate gait, as if contact with the ground pained his feet.

During a middle afternoon he came upon a small dank glade surrounded by black mandouars, tall and portentous as hooded monks. A few red rays slanting into the glade illumined a single twisted quince tree, where hung a strip of parchment. Standing back in the shadows Cugel studied the glade at length, then stepping forward took the parchment. In

crabbed characters a message was indited:

Zaraides the Sage makes a generous offer! He who finds this message may request and obtain an hour of judicious counsel at no charge. Into a nearby hillock opens a cave; the Sage will be found within.

Cugel studied the parchment with puzzlement. A large question hung in the air: why should Zaraides give forth his lore with such casual largesse? The purportedly free was seldom as represented; in one guise or another the Law of Equivalence must prevail. If Zaraides offered counsel—dismissing the premise of absolute altruism—he expected some commodity in return: at minimum an inflation of self-esteem, or knowledge regarding distant events, or polite attention at a recitation of odes, or some such service. As Cugel re-read the message, his skepticism, if anything, augmented. He would have flung the parchment aside had not he felt a real and urgent need for information: specifically knowledge regarding the most secure route to the manse of Iucounu, together with a method for rendering the Laughing Magician helpless.

Cugel looked all about, seeking the hillock to which Zaraides referred. Across the glade the ground seemed to rise, and lifting

his eyes, Cugel noticed gnarled limbs and clotted foliage on high, as if a number of daobados grew on lofty ground.

With maximum vigilance Cugel proceeded through the forest, and presently was halted by a sudden upthrust of gray rock crowned with trees and vines: undoubtedly the hillock in question.

Cugel stood pulling at his chin, showing his teeth in a grimace of doubt. He listened: quiet, utter and complete. Keeping to the shadows he continued around the hillock, and presently came upon the cave: an arched opening into the rock as high as a man, as wide as his outstretched arms. Above hung a placard printed in untidy characters:

ENTER: ALL ARE WELCOME!

Cugel looked this way and that. No sight nor sound in the forest. He took a few careful steps forward, peered into the cave, to find only darkness.

Cugel drew back. In spite of the genial urgency of the sign, he felt no inclination to thrust himself forward, and squatting on his haunches he watched the cave intently.

Fifteen minutes passed. Cugel shifted his position; and now, to the right, he spied a man approaching, using a caution hardly less elaborate than his own. The newcomer was of medium

stature and wore the rude garments of a peasant: **gray** trousers, a rust-colored blouse, a cocked brown hat with **bill** thrust forward. He had a **round**, somewhat coarse face, with a **stub** of a nose, small eyes set far **apart**, a heavy chin bestubbed **with** a fuscous growth. Clutched **in** his hand was a parchment like **that** which Cugel had found.

Cugel rose to his feet. The newcomer halted, **then** came forward. "You are Zaraides? If so, know me for Fabeln the herbalist; I seek a rich growth of wild leeks. Further, my daughter moons and languishes, and **will** no longer carry panniers; therefore—"

Cugel held up his **hand**. "You err; Zaraides keeps to his cave."

Fabeln narrowed his eyes craftily. "Who then are you?"

"I am Cugel: **like** yourself, a seeker after enlightenment."

Fabeln nodded **in** full comprehension. "You have **consulted** Zaraides? He is **accurate** and trustworthy? He demands no fee as his prospectus purports?"

"Correct, in every detail," said Cugel. "Zaraides, **who** is apparently omniscient, **speaks** from the sheer joy of **transmitting** information. My **perplexities** are resolved."

Fabeln inspected **him** sidelong. "Why then do you **wait** beside the cave?"

"I also am a **herbalist**, and I formulate new questions, specifi-

cally in regard to a nearby glade profuse with wild leeks."

"Indeed!" ejaculated Fabeln, snapping his fingers in agitation. "Formulate with care, and while you arrange your phrases, I will step within and inquire regarding the lassitude of my daughter."

"As you will," said Cugel. "Still, if you care to delay, I will be only a short time composing my questions."

Fabeln made a jovial gesture. "In this short period, I will be into the cave, out and away, for I am a man swift to the point of brusqueness."

Cugel bowed. "In that case, proceed."

"I will be brief." And Fabeln strode into the cave. "Zaraides?" he called. "Where is Zaraides the Sage? I am Fabeln; I wish to make certain inquiries. Zaraides? Be so good as to come forth!" His voice became muffled. Cugel, listening intently, heard the opening and closing of a door, and then there was silence. Thoughtfully he composed himself to wait.

Minutes passed and an hour. The red sun moved down the afternoon sky and passed behind the hillock. Cugel became restive. Where was Fabeln? He cocked his head: once more the opening and closing of a door? Indeed, and here was Fabeln: all then was well!

Fabeln looked forth from the cave. "Where is Cugel the herbal-

ist?" He spoke in a harsh brusque voice. "Zaraides will not sit down to the banquet nor will he discuss leeks, except in the most general terms, until you present yourself."

"A banquet?" asked Cugel with interest. "Does the bounty of Zaraides extend so far?"

"Indeed: did you not notice the tapestried hall, the carved goblets, the silver tureen?" Fabeln spoke with a certain saturnine emphasis which puzzled Cugel. "But come; I am in haste, and do not care to wait. If you already have dined, I will so inform Zaraides."

"By no means," said Cugel, with dignity. "I would burn with humiliation thus to slight Zaraides. Lead on; I follow."

"Come then." Fabeln turned; Cugel followed him into the cave, where his nostrils were assailed by a revolting odor. He paused. "I seem to notice a stench: one which affects me unpleasantly."

"I noticed the same," said Fabeln. "But through the door and the foul odor is no more!"

"I trust as much," said Cugel peevishly. "It would destroy my appetite. Where then—"

As he spoke he was swarmed upon by small quick bodies, clammy of skin and tainted with the odor he found so detestable. There was a clamour of high-pitched voices; his sword and pouch were snatched; a door was opened; Cugel was pitched into

a low burrow. In the light of a flickering yellow flame he saw his captors: creatures half his height, pallid of skin, pointed of face, with ears on the tops of their heads. They walked with a slight forward hunch, and their knees seemed jointed opposite to those of true men, and their feet, in sandals, seemed very soft and supple.

Cugel looked about in bewilderment. Nearby crouched Fabeln, regarding him with loathing mingled with malicious satisfaction. Cugel saw now that a metal band encircled Fabeln's neck, to which was connected a long metal chain. At the far end of the burrow huddled an old man with long white hair, likewise fitted with collar and chain. Even as Cugel looked about him, the rat-people clamped a collar to his own neck. "Hold off!" exclaimed Cugel in consternation. "What does this mean? I deplore such treatment!"

The rat-folk gave him a shove and ran away. Cugel saw that long squamous tails depended from their pointed rumps, which protruded peculiarly from the black smocks which they wore.

The door closed; the three men were alone.

Cugel turned angrily upon Fabeln. "You tricked me; you led me to capture! This is a serious offense!"

Fabeln gave a bitter laugh. "No less serious than the deceit you

practised upon me! By your knavish trick, I was taken; I therefore ensured that you should not escape."

"This is inhuman malice!" roared Cugel. "I shall see to it that you receive your just deserts!"

"Bah," said Fabeln. "Do not annoy me with your complaints. In any event, I did not lure you into the cave from malice alone."

"No? You have a further perverse motive?"

"It is simple: the rat-folk are nothing if not clever! Whoever entices two others into the cave wins his own freedom. You represent one item to my account; I need furnish a second and I go free. Is this not correct Zارايدس?"

"Only in a broad sense," replied the old man. "You may not tally this man to your account; if justice were absolute you and he would fulfil my score; did not my parchments bring you to the cave?"

"But not within!" declared Fabeln. "Here lies the careful distinction which must be made! The rat-folk concur, and hence you have not been released."

"In this case," said Cugel, "I hereby claim you as an item upon my score, since I sent you into the cave to test the circumstances to be encountered."

Fabeln shrugged. "This is a matter you must take up with the rat-folk." He frowned and blinked his

small eyes. "Why should I not claim myself as a credit to my own account? It is a point worth asserting."

"Not so, not so," came a shrill voice from behind a grate. "We tally only those items provided after impoundment. Fabeln is tallied to no one's account. He however is adjudged one item: namely, the person of Cugel. Zارايدس has a score of null."

Cugel felt the collar at his neck. "What if we fail to provide two items?"

"A month is your time; no more. If you fail in this month, you are devoured."

Fabeln spoke in a voice of sober calculation. "I believe that I am as good as free. At no great distance my daughter waits. She is suddenly impatient with wild leeks and hence redundant to my household. It is fitting that by her agency I am released." And Fabeln nodded with ponderous satisfaction.

"It will be interesting to watch your methods," Cugel remarked. "Precisely where is she to be found and how will she be summoned?"

Fabeln's expression became both cunning and rancorous. "I tell you nothing! If you wish to tally items, devise the means yourself!"

In disgust and contempt, Cugel turned to Zارايدس. "And what is the basis of your method?"

Zارايدس gestured to a board

where lay strips of parchment. "I tie persuasive messages to winged seeds, which are then liberated into the forest. The method is of questionable utility, luring passersby to the mouth of the cave, but enticing them no further. I fear that I have only five days to live. If only I had my librums, my folios, my work-books! What spells, what spells! I would rive this warren end to end; I would convert each of these man-rodents into a blaze of green fire. I would punish Fabeln for cheating me . . . Hmmm. The Gyrator? Lugwiler's Dismal Itch?"

"The Spell of Forlorn Encystment has its advocates," Cugel suggested.

Zaraides nodded. "The idea has much to recommend it . . . But this is a forlorn dream: my spells were snatched away and conveyed to some secret place."

Fabeln snorted and turned aside. From behind the grate came a shrill admonition: "Regrets and excuses are poor substitutes for items upon your score. Emulate Fabeln! Already he boasts one item and plans a second on the morrow! This is the sort we capture by choice!"

"I captured him!" asserted Cugel. "Have you no probity? I sent him into the cave; he should be credited to my account!"

Zaraides cried out in vehement protest. "By no means! Cugel distorts the case! If pure justice were

done, both Cugel and Fabeln should be tallied to my score!"

"All is as before!" called out the shrill voice.

Zaraides threw up his hands and went to writing parchments with furious zeal. Fabeln hunched himself on a stool and sat in placid reflection. Cugel, in crawling past, kicked a leg from the stool and Fabeln fell to the floor. He rose, sprang at Cugel, who threw the stool at him.

"Order!" called the shrill voice. "Order or penalties will be inflicted!"

"Cugel dislodged the stool, to send me sprawling," complained Fabeln. "Why is he not punished?"

"The sheerest mischance," stated Cugel. "In my opinion the irascible Fabeln should be placed incommunicado, for at least two, or more properly, three weeks."

Fabeln began to sputter, but the shrill voice behind the grate enjoined an impartial silence upon all.

Food was presently brought, a coarse porridge of offensive odor. After the meal all were forced to crawl to a constricted burrow on somewhat a lower level, where they were chained to the wall. Cugel fell into a troubled sleep, to be awakened by a call through the door to Fabeln: "The message has been delivered, it was read with great attention."

"Good news!" came Fabeln's

voice. "Tomorrow I shall walk the forest a free man!"

"Silence," croaked Zارايدس from the dark. "Must I daily write parchments for everyone's benefit but my own, only to lie awake by night to your vile gloating?"

"Ha ha!" chortled Fabeln. "Hear the voice of the ineffectual wizard!"

"Alas for my lost librams!" groaned Zارايدس. "You would sing a vastly different tune!"

"In what quarter are they to be found?" inquired Cugel cautiously.

"As to that, you must ask these foul murids; they seized me unawares."

Fabeln raised his head to complain. "Do you intend to exchange reminiscences the whole night through? I wish to sleep."

Zارايدس, infuriated, began to upbraid Fabeln in so violent a manner that the rat-folk ran into the burrow and dragged him away, leaving Cugel and Fabeln alone.

In the morning Fabeln ate his porridge with great rapidity. "Now then," he called to the grating, "detach this collar, that I may go forth to summon the second of my tallies, Cugel being the first."

"Bah," muttered Cugel. "Infamous!"

The rat-folk, paying no heed to Fabeln's protests, adjusted the collar even more tightly around his neck, affixed the chain and pulled him forth on hands and

knees, and Cugel was left alone.

He tried to sit erect, but the damp dirt pressed on his neck, and he slumped back down on his elbows. "Cursed rat-creatures! Somehow I must evade them! Unlike Fabeln I have no household to draw from, and the efficacy of Zارايدس' parchments is questionable . . . Conceivably, however, others may wander close, in the fashion of Fabeln and myself." He turned to the grate, behind which sat the sharp-eyed monitor. "In order to recruit the required two items, I wish to wait outside the cave."

"This is permitted," announced the monitor. "Supervision must of course be rigid."

"Supervision is understandable," agreed Cugel. "I request however that the chain and collar be removed from my neck. With a constraint so evident, even the most credulous will turn away."

"There is something in what you say," admitted the monitor. "But what is there to prevent you from taking to your heels?"

Cugel gave a somewhat labored laugh. "Do I seem one to betray a trust? Further, why should I do so, when I can easily procure tally after tally for my score?"

"We shall make certain adjustments." A moment later a number of the rat-folk swarmed into the burrow. The collar was loosened from Cugel's neck, his right leg was seized and a silver pin driven

through his ankle, to which, while Cugel called out in anguish, a chain was secured.

"The chain is now inconspicuous," stated one of his captors. "You may now stand before the cave and attract passers-by as best you may."

Still groaning in pain Cugel crawled up through the burrows and into the cave-mouth, where Fabeln sat, a chain about his neck, awaiting the arrival of his daughter. "Where do you go?" he asked suspiciously.

"I go to pace before the cave, to attract passers-by and direct them within!"

Fabeln gave a sour grunt, and peered off through the trees.

Cugel went to stand before the cave-mouth. He looked in all directions, then gave a melodious call. "Does anyone walk near?"

He received no reply, and began to pace back and forth, the chain jingling along the ground.

Movement through the trees: the flutter of yellow and green cloth, and here came Fabeln's daughter, carrying a basket and an axe. At the sight of Cugel she paused, then hesitantly approached. "I seek Fabeln, who has requested certain articles."

"I will take them," said Cugel, reaching for the axe, but the rat-folk were alert and hauled him quickly back into the cave. "She must place the axe on that far rock," they hissed into Cugel's

ear. "Go forth and so inform her."

Cugel limped forth once more. The girl looked at him in puzzlement. "Why did you leap back in that fashion?"

"I will tell you," said Cugel, "and it is an odd matter, but first you must place your basket and axe on that rock yonder, where the true Fabeln will presently arrive."

From within the cave came a mutter of angry protest, quickly stifled.

"What was that sound?" inquired the girl.

"Do with the axe as I require, and I will make all known."

The girl, puzzled, took axe and basket to the designated spot, then returned. "Now, where is Fabeln?"

"Fabeln is dead," said Cugel. "His body is currently possessed by a malicious spirit; do not on any grounds heed it: this is my warning."

At this Fabeln gave a great groan, and called from the cave. "He lies, he lies. Come hither, into the cave!"

Cugel held up a hand in restraint. "By no means. Be cautious!"

The girl peered in wonder and fear toward the cave where now Fabeln appeared, making the most earnest gesticulations. The girl drew back. "Come, come!" cried Fabeln. "Enter the cave!"

The girl shook her head, and Fabeln in a fury attempted to tear

loose his chain. The rat-folk dragged him hastily back into the shadows, where Fabeln fought so vigorously that the rat-folk were obliged to kill him and drag his body back into the burrows.

Cugel listened attentively, then turned to the girl and nodded. "All is now well. Fabeln left certain valuables in my care; if you will step within the cave, I will relinquish them to you."

The girl shook her head in bewilderment. "Fabeln owned nothing of value!"

"Be good enough to inspect the objects." Cugel courteously motioned her to the cave. She stepped forward, peered within, where the rat-folk seized her and dragged her down into the burrow.

"This is item one on my score," called Cugel within. "Do not neglect to record it!"

"The tally is duly noted," came a voice from within. "One more such and you go free."

The remainder of the day Cugel paced back and forth before the cave, looking this way and that through the trees, but saw no one. At night-fall he was drawn back into the cave and pent in the low-level burrow where he had passed the previous night. Now it was occupied by Fabeln's daughter. Naked, bruised, vacant-eyed, she stared at him fixedly. Cugel attempted an exchange of conversation, but she seemed bereft of speech.

The evening porridge was served. While Cugel ate, he watched the girl surreptitiously. She was by no means uncomely, though now bedraggled and soiled. Cugel crawled closer, but the odor of the rat-folk was so strong that his lust diminished, and he drew back.

During the night there was furtive sound in the burrow: a scraping, scratching, grating sound. Cugel, blinking sleepily, raised on an elbow, to see a section of the floor tilt stealthily ajar, allowing a seep of smoky yellow light to play on the girl. Cugel cried out; into the burrow rushed rat-folk carrying tridents, but it was too late: the girl had been stolen.

The rat-folk were intensely angry. They raised the stone, screamed curses and abuse into the gap. Others appeared, carrying buckets of filth and these they poured into the hole, with further vituperation. One aggrievedly explained the situation to Cugel. "Other beings live below; they cheat us at every turn. Someday we will exact revenge; our patience is not inexhaustible! This night you must sleep elsewhere lest they make another sortie." He loosened Cugel's chain, but now was called by those who cemented the hole in the floor.

Cugel moved quietly to the entrance, and when the attention of all were distracted, slipped out into the passage. Gathering up the

chain, he crawled in that direction which he thought led to the surface, but encountering a side-passage became confused. The tunnel turned downward and, becoming narrow, constricted his shoulders; then it diminished in height, pressing down on him from above, so that he was forced to writhe forward, jerking himself by his elbows.

His absence was discovered; from behind came squeals of rage, as the rat-folk rushed this way and that.

The passage made a sharp twist, at an angle into which Cugel found it impossible to twist his body. Writhing and jerking, he squeezed himself into a new posture, and now could no longer move. He exhaled and with eyes starting from his head, lunged about and up, and drew himself into a passage more open. In a niche he came upon a fire-ball, which he carried with him.

The rat-folk were approaching, screaming injunctions. Cugel thrust himself into a side-passage which opened into a store-room. The first objects to meet his eye were his sword and pouch.

The rat-folk rushed into the room with tridents. Cugel hacked and slashed and drove them squealing back into the corridor. Here they gathered, darting back and forth, calling shrill threats in at Cugel. Occasionally one would rush forward to gnash its teeth

and flourish its trident, but when Cugel killed two of these, they drew back to confer in low tones.

Cugel took occasion to thrust certain heavy cases against the entrance, thus affording himself a moment's respite.

The rat-folk pressed forward, kicked and shoved. Cugel thrust his blade through a chink, eliciting a wail of intense distress.

One spoke: "Cugel, come forth! We are a kindly folk and bear no malice. You have one item upon your score, and shortly no doubt will secure another, and thus go free. Why discommode us all? There is no reason why, in an essentially inconvenient relationship, we should not adopt an attitude of camaraderie. Come forth, then, and we will provide meat for your morning porridge."

Cugel spoke politely. "At the moment I am too distraught to think clearly. Did I hear you say that you planned to set me free without further charge or difficulty?"

There was a whispered conversation in the corridor, then came the response. "There was indeed a statement to that effect. You are hereby declared free, to come and go as you wish. Unblock the entrance, cast down your sword, and come forth!"

"What guarantee can you offer me?" asked Cugel, listening intently at the blocked entrance.

There were shrill chattering

whispers, then the reply: "No guarantee is necessary. We now retire. Come forth, walk along the corridor to your freedom."

Cugel made no response. Holding aloft the fire-ball he turned to inspect the store-room, which contained a great store of articles of clothing, weapons, tools. In that bin he had pushed against the entrance he noticed a group of leather-bound librams. On the face of the first was printed:

ZARAIDES THE WIZARD

His Work-book: Beware!

The rat-folk called once more, in gentle voices: "Cugel, dear Cugel: why have you not come forth?"

"I rest: I recover my strength," said Cugel. He took forth the libram, turned the pages, and found an index.

"Come forth, Cugel!" came a command, somewhat sterner. "We have here a pot of noxious vapor which we propose to discharge into the chamber where you so obdurately seclude yourself. Come forth, or it shall be the worse for you!"

"Patience," called Cugel. "Allow me time to collect my wits!"

"While you collect your wits we ready the pot of acid in which we plan to immerse your head."

"Just so, just so," said Cugel absently, engrossed in the work-book. There was a scraping sound

and a tube was thrust into the chamber. Cugel took hold of the tube, twisted it so that it pointed back into the corridor.

"Speak, Cugel!" came the portentous order. "Will you come forth or shall we send a great gust of vile gas into the chamber?"

"You lack that capability," said Cugel. "I refuse to come forth."

"You shall see!"

The tube pulsed and hissed; from the corridor came a cry of vast dismay. The hissing ceased.

Cugel, not finding what he sought in the work-book, drew forth a tome. This bore the title:

ZARAIDES THE WIZARD

His Compendium of Spells
Beware!

Cugel opened and read; finding an appropriate spell he held the fire-ball close, the better to encompass the activating syllables. There were four lines of words, thirty-one syllables in all. Cugel forced them into his brain, where they lay like stones.

A sound behind him? Into the chamber from another portal came the rat-folk. Crouching low, white faces twitching, ears down, they crept forward, tridents leveled.

Cugel menaced them with his sword, then chanted that spell known as the Inside Out and Over, while the rat-folk stared aghast. A great tearing sound: a convulsive lift and twist as the

passages everted, spewing all through the forest. Rat-folk ran squealing back and forth, and there were also running white things whose nature Cugel could not distinguish by starlight. Rat-folk and the white creatures grappled and tore ferociously at each other, and the forest was filled with snarling and gnashing, shrill screams and small voices raised in outcry.

Cugel moved quietly away, and in a bilberry thicket waited out the night.

When dawn arrived he returned cautiously to the hillock, hoping to possess himself of Zaraides' compendium and work-book. There was great litter, and many small corpses, but the articles he sought were not to be found. Regretfully Cugel turned away and presently came upon Fabeln's daughter sitting among the ferns. When he approached, she squeaked at him. Cugel pursed his lips, shook his head in disapproval. He led her to a nearby stream and attempted to wash her, but at the first opportunity she disengaged herself and hid under a rock.

II: THE MANSE OF IUCOUNU

The hillock, after heaving, ejecting its contents and re-establishing, was as before. Searching through the multifarious litter, Cugel found articles of every de-

scription: garments new and old; jerkins, vests and cloaks; antique tabards; breeches flared after the taste of Kauchique, or fringed and tassled in the style of Old Romarth, or pied and gored in the extravagant Andromach mode. There were boots and sandals and hats of every description; plumes, panaches, emblems and crests; old tools and broken weapons; bangles and trinkets; tarnished filigrees, crusted cameos; gemstones which Cugel could not refrain from gathering and which perhaps delayed him from finding that which he sought: the work-books of Zaraides, which had been scattered with the rest.

Cugel searched at length. He found silver bowls, ivory spoons, porcelain vases; gnawed bones and shining teeth of many sorts, these glittering like pearls among the leaves—but nowhere the tomes and folios which might have helped him overcome Iucounu the Laughing Magician. Even now Iucounu's creature of coercion, Firx, clamped serrated members upon Cugel's liver. Cugel finally called out: "I merely seek the most direct route to Azenomei; you will soon rejoin your comrade in Iucounu's vat! Meanwhile take your ease; are you in such an agony of haste?" At which Firx sullenly relaxed his pressure.

Cugel wandered disconsolately back and forth, looking among branches and under roots, squint-

ing up the forest aisles, licking among the ferns and mosses. Then at the base of a stump he saw that which he sought: a number of folios and librams, gathered into a neat stack. Upon the stump sat Zaraides.

Cugel stepped forward, pinch-mouthed with disappointment. Zaraides surveyed him with a serene countenance. "You appear to seek some misplaced object. The loss, I trust, is not serious?"

Cugel gave his head a terse shake. "A few trifles have gone astray. Let them moulder among the leaves."

"By no means!" declared Zaraides. "Describe the loss; I will send forth a searching oscillation. You will have your property within moments!"

Cugel demurred. "I would not impose such a trivial business upon you. Let us consider other matters." He indicated the stack of tomes, upon which Zaraides had now placed his feet. "Happily your own property is secure."

Zaraides nodded with placid satisfaction. "All is now well; I am concerned only with that imbalance which distorts our relationship." He held up his hand as Cugel stood back. "There is no cause for alarm; in fact, quite the reverse. Your acts averted my death; the Law of Equivalences has been disturbed and I must contrive a reciprocity." He combed his beard with his fingers.

"The requital unfortunately must be largely symbolic. I could well fulfill the totality of your desires and still not nudge the scale against the weight of the service you have performed, even if unwittingly, for me."

Cugel became somewhat more cheerful, but now Firx, once again impatient, made a new demonstration. Claspng his abdomen Cugel cried out: "Preliminary to all, be good enough to extract the creature which lacerates my vitals, a certain Firx."

Zaraides raised his eyebrows. "What manner of creature is this?"

"A detestable object from a far star. It resembles a tangle, a thicket, a web of white spines, barbs and claws."

"A matter of no great difficulty," said Zaraides. "These creatures are susceptible to a rather primitive method of extirpation. Come; my dwelling lies at no great distance."

Zaraides stepped down from the stump, gathered his compendia and flung them into the air; all lofted high, to float swiftly over the treetops and out of sight. Cugel watched them go with sadness.

"You marvel?" inquired Zaraides. "It is nothing: the simplest of procedures and a curb on the zeal of thieves and footpads. Let us set forth; we must expel this creature which causes you such distress."

He led the way through the

trees. Cugel came after, but now Firx, belatedly sensing that all was not to his advantage, made a furious protest. Cugel, bending double, jumping sidewise, forced himself to totter and run after Zaraides, who marched without so much as a backward glance.

In the branches of an enormous daobado Zaraides had his dwelling. Stairs rose to a heavy drooping bough which led to a rustic portico. Cugel crawled up the staircase, along the bough, and into a great square room. The furnishings were at once simple and luxurious. Windows looked in all directions over the forest; a thick rug patterned in black, brown and yellow covered the floor.

Zaraides beckoned Cugel into his workroom. "We will abate this nuisance at once."

Cugel stumbled after him and at a gesture settled upon a glass pedestal.

Zaraides brought a screen of zinc strips which he placed at Cugel's back. "This is to inform Firx that a trained wizard is at hand: creatures of his sort are highly antipathetic to zinc. Now then, a simple potion: sulfur, aquastel, tincture of zyche; certain herbs: bournade, hilp, cassas, though these latter are perhaps not essential. Drink, if you will . . . Firx, come forth! Hence, you extra-terrestrial pest! Remove! Or I dust Cugel's entire interior with sulfur and pierce him

with zinc rods! Come forth! What? Must I flush you forth with aquastel? Come forth; return to Achernar as best you may!"

At this Firx angrily relinquished his grip and issued from Cugel's chest: a tangle of white nerves and tendrils, each with its claw or barb. Zaraides captured the creature in a zinc basin which he covered with a mesh of zinc.

Cugel, who had lost consciousness, awoke to find Zaraides serenely affable, awaiting his recovery. "You are a lucky man," Zaraides told him. "The treatment was only barely in time. It is the tendency of this maleficent incubus to extend its prongs everywhere through the body, until it clamps upon the brain; then you and Firx are one and the same. How did you become infected with the creature?"

Cugel gave a small grimace of distaste. "It was at the hands of Iucounu the Laughing Magician. You know him?" For Zaraides had allowed his eyebrows to arch high.

"Mainly by his reputation for humor and grotesquerie," replied the sage.

"He is nothing less than a buffoon!" exclaimed Cugel. "For a fancied slight he threw me to the north of the world, where the sun wheels low and casts no more heat than a lamp. Iucounu must have his joke, but now I will have a joke of my own! You have announced your effusive gratitude,

and so, before ~~proceeding~~ to the main body of my desires, we will take a suitable revenge upon Iucounu."

Zaraides nodded thoughtfully and ran his fingers through his beard. "I will advise you. Iucounu is a vain and sensitive man. His most vulnerable spot is his self-esteem. Turn your back on him, take yourself to another quarter! This act of proud disdain will strike a pang more exquisite than any other discomfort you might devise."

Cugel frowned. "The reprisal seems rather too abstract. If you will be good enough to summon a demon, I will give him his instructions in regard to Iucounu. The business will then be at an end, and we can discuss other matters."

Zaraides shook his head. "All is not so simple. Iucounu, himself devious, is not apt to be taken unawares. He would instantly learn who instigated the assault, and the relations of distant cordiality we have enjoyed would be at an end."

"Pah!" scoffed Cugel. "Does Zaraides the Sage fear to identify himself with the cause of justice? Does he blink and draw aside from one so timid and vacillating as Iucounu?"

"In a word—yes," said Zaraides. "At any instant the sun may go dark; I do not care to pass these last hours exchanging jests with Iucounu, whose humor is much

more elaborate than my own. So now, attend. In one minute I must concern myself with certain important duties. As a final signal of gratitude I will transfer you to whatever locale you choose. Where shall it be?"

"If this is your best, take me then to Azenomei, at the juncture of the Xzan with the Scaum!"

"As you wish. Be so good as to step upon this stage. Hold out your hands thus . . . Draw your breath deep, and during the passage neither inhale nor exhale . . . Are you ready?"

Cugel assented. Zaraides drew back, called a spell. Cugel was jerked up and away. An instant later the ground touched his feet and he found himself walking the main concourse of Azenomei. He drew a deep breath. "After all the trials, all the vicissitudes, I am once again in Azenomei!" And, shaking his head in wonder, he looked about him. The ancient structures, the terraces overlooking the river, the market: all were as before. Not far distant was the booth of Fianosther. Turning his back to avoid recognition, he sauntered away.

"Now what?" he ruminated. "First, new garments, then the comforts of an inn, where I may weigh every aspect of my present condition. When one wishes to laugh with Iucounu, he should embark upon the project with all caution."

Two hours later, bathed, shorn, refreshed, and wearing new garments of black, green and red, Cugel sat in the common room of the River Inn with a plate of spiced sausages and a flask of green wine.

"This matter of a just settlement poses problems of extreme delicacy," he mused. "I must move with care!"

He poured wine from the flagon, ate several of the sausages. Then he opened his pouch and withdrew a small object wrapped carefully in soft cloth: the violet cusp which Iucounu wished as a match for the one already in his possession. He raised the cusp to his eye but stopped short: it would display the surroundings in an illusion so favorable that he might never wish to remove it. And now, as he contemplated the glossy surface, there entered his mind a program so ingenious, so theoretically effective and yet of such small hazard, that he instantly abandoned the search for a better.

Essentially, the scheme was simple. He would present himself to Iucounu and tender the cusp, or more accurately, a cusp of similar appearance. Iucounu would compare it with that which he already owned, in order to test the efficacy of the coupled pair, and inevitably look through both. The discord between the real and false would jar his brain and render

him helpless, whereupon Cugel could take such measures as seemed profitable.

Where was the flaw in the plan? Cugel could see none. If Iucounu discovered the substitution, Cugel need only utter an apology and produce the real cusp, and so lull Iucounu's suspicions. All in all, the probabilities of success seemed excellent.

Cugel finished his sausages in leisure, ordered a second flagon of wine, and observed with pleasure the view across the Xzan. There was no need for haste; indeed, while dealing with Iucounu, impulsiveness was a serious mistake, as he already had learned.

On the following day, still finding no fault in his plan, he visited a glass-blower whose workroom was established on the banks of the Scaum a mile to the east of Azenomei, in a copse of fluttering yellow bilibobs.

The glass-blower examined the cusp. "An exact duplicate, of identical shape and color? No small task, with a violet so pure and rich. Such a color is most difficult to work into glass; there is no specific stain; all must be a matter of guess and hazard. Still—I will prepare a melt. We shall see, we shall see."

After several trials he produced a glass of the requisite hue, from which he fashioned a cusp superficially indistinguishable from the magic lens.

"Excellent!" declared Cugel. "And now, as to your fee?"

"Such a cusp of violet glass I value at a hundred terces," replied the glass-blower in a casual manner.

"What?" cried Cugel in outrage. "Do I appear so gullible? The charge is excessive."

The glass-blower replaced his tools, swages, and crucibles, showing no concern for Cugel's indignation. "The universe evinces no true stability. All fluctuates, cycles, ebbs and flows; all is pervaded with mutability. My fees, which are immanent with the cosmos, obey the same laws and vary according to the anxiety of the customer."

Cugel drew back in displeasure, at which the glass-blower reached forth and possessed himself of both cusps. Cugel exclaimed: "What do you intend?"

"I return the glass to the crucible; what else?"

"And what of my cusp?"

"I retain it as a memento of our conversation."

"Hold!" Cugel drew a deep breath. "I might pay your exorbitant fee if the new cusp were as clear and perfect as the old."

The glass-blower inspected first one, then the other. "To my eye they are identical."

"What of focus?" Cugel challenged. "Hold both to your vision, look through both, then say as much!"

The glass-blower raised both cusps to his eyes. One allowed a view into the Overworld, the other transmitted a view of Reality. Stunned by the discord, the glass-blower swayed and would have fallen had not Cugel, in an effort to protect the cusps, supported him, and guided him to a bench.

Taking the cusps, Cugel tossed three terces to the work-table. "All is mutability, and thus your hundred terces has fluctuated to three."

The glass-blower, too dazed to make sensible reply, mumbled and struggled to raise his hand, but Cugel strode from the studio and away.

He returned to the inn. Here he donned his old garments, stained and torn by much harsh treatment, and set forth along the banks of the Xzan.

As he walked he rehearsed the approaching confrontation, trying to anticipate every possible contingency. Ahead, the sunlight glinted through spiral green glass towers: the manse of Iucounu!

Cugel halted to gaze up at the eccentric structure. How many times during his journey had he envisioned himself standing here, with Iucounu the Laughing Magician close at hand!

He climbed the winding way of dark brown tile, and every step increased the tautness of his nerves. He approached the front door, and saw on the heavy panel an object

which before he had failed to notice: a visage carved in ancient wood, a gaunt face pinched of cheek and jaw, the eyes aghast, the lips drawn back, the mouth wide in a yell of despair or perhaps defiance.

With his hand raised to rap at the door, Cugel felt a chill settle on his soul. He drew back from the haggard wooden countenance, turned to follow the gaze of the blind eyes—across the Xzan and away over the dim bare hills, rolling and heaving as far as vision could reach. He reviewed his plan of operations. Was there flaw? Danger to himself? None was apparent. If Iucounu discovered the substitution Cugel could always plead error and produce the genuine cusp. Great advantage was to be gained at small risk! Cugel turned back, rapped on the heavy panel.

A minute passed. Slowly the portal swung open. A flow of cool air issued forth, carrying a bitter odor which Cugel could not identify. The sunlight slanting across his shoulder passed through the portal and fell upon the stone floor. Cugel peered uncertainly into the vestibule, reluctant to enter without an express invitation. "Iucounu!" he called. "Come forth, that I may enter your manse! I wish no further unjust accusations!"

Within was a stir, a slow sound of feet. From a room to the side

came Iucounu, and Cugel thought to detect a change in his countenance. The great soft yellow head seemed looser than before; the jowls sagged, the nose hung like a stalactite, the chin was little more than a pimple below the great twitching mouth.

Iucounu wore a square brown hat with each of the corners tipped up, a blouse of brown and black diaper, loose pantaloons of a heavy dark brown stuff with black embroidery: a handsome set of garments which Iucounu wore without grace, as if they were strange to him, and uncomfortable; and indeed, he gave Cugel a greeting which Cugel found odd. "Well, fellow, what is your purpose? You will never learn to walk ceilings standing on your hands." And Iucounu hid his mouth with his hands to conceal a snicker.

Cugel raised his eyebrows in surprise and doubt. "This is not my purpose. I have come on an errand of vast import: namely, to report that the mission I undertook on your behalf is satisfactorily terminated."

"Excellent!" cried Iucounu. "You may now tender me the keys to the bread locker."

"'Bread locker'?" Cugel stared in surprise. Was Iucounu mad? "I am Cugel, whom you sent north on a mission. I have returned with the magic cusp affording a view into the Overworld!"

"Of course, of course!" cried Iu-

counu. " 'Brzm-szzst'. I fear I am vague, among so many contrasting situations; nothing is quite as before. But now I welcome you. Cugel, of course! All is clear. You have gone forth, you have returned! How is friend Firx? Well, I trust? I have longed for his companionship. An excellent fellow, Firx!"

Cugel acquiesced with no great fervor. "Yes, Firx has been a friend indeed, an unflagging source of encouragement."

"Excellent! Step within! I must provide refreshment! What is your preference: 'sz-mzsm' or 'szk-zsm'?"

Cugel eyed Iucounu askance. His demeanor was more than peculiar. "I am familiar with neither of the items you mention, and hence will decline both with gratitude. But observe! The magic violet cusp!" And Cugel displayed the glass fabrication which he had procured only a few hours before.

"Excellent!" declared Iucounu. "You have done well, and your transgressions—now I recall all, having sorted among the various circumstances—are hereby declared nullified. But give me the cusp! I must put it to trial!"

"Of course," said Cugel. "I respectfully suggest, that in order to comprehend the full splendor of the Overworld, you bring forth your own cusp and look through both simultaneously. This is the only appropriate method."

"True, how true! My cusp; now where did that stubborn rascal conceal it?"

" 'Stubborn rascal'?" inquired Cugel. "Has someone been misarranging your valuables?"

"In a manner of speaking." Iucounu gave a wild titter, and kicked up both feet far to the side, falling heavily to the floor, from where he addressed the astounded Cugel. "It is all one, and no longer of consequence, since all must transpire in the 'mnz' pattern. Yes. I will shortly consult with Firx."

"On a previous occasion," said Cugel patiently, "you procured your cusp from a cabinet in that chamber yonder."

"Silence!" commanded Iucounu in sudden annoyance. He hauled himself to his feet. " 'Szzsz'! I am well aware as to where the cusp is stored. All is completely coordinated! Follow me. We shall learn the essence of the Overworld at once!" He emitted a bray of immoderate laughter.

Iucounu shuffled into the side-chamber, returned with the case containing his magic cusp. He made an imperious gesture to Cugel. "Stand exactly at this spot. Do not move, as you value Firx!"

Cugel bowed obediently. Iucounu took forth his cusp. "Now—the new object!"

Cugel tendered the glass cusp. "To your eyes, both together, that you may enjoy the full glory of the Overworld!"

"Yes! This is as it shall be!" Iucounu lifted the two cusps and applied them to his eyes. Cugel, expecting him to fall paralyzed by the discord, reached for the cord he had brought to tie the insensible savant; but Iucounu showed no signs of helplessness. He peered this way and that, chortling in a peculiar fashion. "Splendid! Superb! A vista of pure pleasure!" He removed the cusps, placed them carefully in the case. Cugel watched glumly.

"I am much pleased," said Iucounu making a sinuous gesture of hands and arms, which further bewildered Cugel. "Yes," Iucounu continued, "you have done well, and the insensate wickedness of your offense is hereby remitted. Now all that remains is the delivery of my indispensable Firx, and to this end I must place you in a vat. You will be submerged in an appropriate liquid for approximately twenty-six hours, which may well suffice to tempt Firx forth."

Cugel grimaced. How was one to reason with a magician not only droll and irascible, but also be-reft? "Such an immersion might well affect me adversely," he pointed out cautiously. "Far wiser to allow Firx a period of further perambulation."

Iucounu seemed favorably impressed by the suggestion, and expressed his delight by means of an extremely intricate jig, which he

performed with agility remarkable in a man of Iucounu's short limbs and somewhat corpulent body. He concluded the demonstration with a great leap into the air, alighting on his neck and shoulders, arms and legs waving like those of an overturned beetle. Cugel watched in fascination, wondering if Iucounu were alive or dead. But Iucounu, blinking somewhat, nimbly gained an upright posture. "I must perfect the exact pressures and thrusts," he ruminated. "Otherwise there is impingement. The eluctance here is of a different order than of 'ssz-pntz'." He emitted another great chortle, throwing back his head, and looking into the open mouth Cugel saw, rather than a tongue, a white claw. Instantly he apprehended the reason for Iucounu's bizarre conduct. In some fashion a creature like Firx had inserted itself into Iucounu's body, and had taken possession of his brain.

Cugel rubbed his chin with interest. A situation of marvel! He applied himself to concentrated thought. Essential to know was whether the creature retained Iucounu's mastery of magic. Cugel said, "Your wisdom astounds me! I am filled with admiration! Have you added to your collection of thaumaturgical curios?"

"No, there is ample at hand," declared the creature, speaking through Iucounu's mouth. "But now I feel the need for relaxation.

The evolution I performed a moment or so ago has made quietude necessary."

"A simple matter," said Cugel. "The most effective means to this end is to clamp with extreme intensity upon the Lobe of Directive Volition."

"Indeed?" inquired the creature. "I will attempt as much; let me see: this is the Lobe of Antithesis and here, the Convolution of Subliminal Configuration . . . 'Szzm'. Much here puzzles me; it was never thus on Achernar." The creature gave Cugel a sharp look to see if the slip had been noticed. But Cugel put on an attitude of lackadaisical boredom; and the creature continued to sort through the various elements of Iucounu's brain. "Ah yes, here: the Lobe Directive Volition. Now, a sudden vigorous pressure."

Iucounu's face became taut, the muscles sagged, the corpulent body crumpled to the floor. Cugel leapt forward and in a trice bound Iucounu's arms and legs and affixed an adhesive pad across the big mouth.

Now Cugel performed a joyful caper of his own. All was well! Iucounu, his manse, his great collection of magical adjuncts were at his disposal! Cugel considered the helpless hulk and started to drag it outside where he might conveniently strike off the great yellow head, but the recollection of the numerous indignities, discomforts

and humiliations he had suffered at Iucounu's hands gave him pause. Should Iucounu attain oblivion so swiftly, with neither cognition nor remorse? By no means!

Cugel pulled the still body out into the hall, and sat on a nearby bench to consider.

Presently the body stirred, opened its eyes, made an effort to arise, and finding this impossible, turned to examine Cugel first in surprise, then outrage. From the mouth came peremptory sounds which Cugel acknowledged with a noncommittal sign.

Presently he arose to his feet, examined the bonds and the mouth-plaster, made all doubly secure, then set about a cautious inspection of the manse, alert for traps, lures or dead-falls which the whimsical Iucounu might have established in order to outwit or beguile intruders. He was especially vigilant during his inspection of Iucounu's workroom, probing everywhere with a long rod, but if Iucounu had set forth snares or beguilements, none were evident.

Looking along Iucounu's shelves, Cugel found sulfur, aquastel, tincture of zyche and herbs from which he prepared a viscose yellow elixir. He dragged the flaccid body into the workroom, administered the potion, called orders and persuasions and finally, with Iucounu an even more intense yellow from ingested sulfur, with aquastel steaming from his

ears, with Cugel panting and perspiring from his own exertions, the creature from Achernar clawed free of the heaving body. Cugel caught it in a great stone mortar, crushed it to a paste with an iron pestle, dissolved all with spirits of vitriol, added aromatic mernaunce and poured the resultant slime down a drain.

Iucounu, presently returning to consciousness, fixed Cugel with a glare of disturbing intensity. Cugel administered an exhalation of raptogen and the Laughing Magician returned to a state of apathy.

Cugel sat back to rest. A problem existed: how best to restrain Iucounu while he made his representations. Finally, after looking through one or two manuals, he sealed Iucounu's mouth with a daub of juncturing compound, secured his vitality with an uncomplicated spell, then pent him in a tall glass tube, which he suspended from a chain in the vestibule.

This accomplished, and Iucounu once more conscious, Cugel stood back with an affable grin. "At last, Iucounu, matters begin to right themselves. Do you recall the indignities you visited upon me? How gross they were! I vowed that you would regret the circumstance! I now begin to validate the vow. Do I make myself clear?"

The expression distorting Iucounu's face was an adequate response.

Cugel seated himself with a goblet of Iucounu's best yellow wine. "I intend to pursue the matter in this wise: I shall calculate the sum of those hardships I have endured, including such almost incommensurable qualities as chills, cold draughts, insults, pangs of apprehension, uncertainties, bleak despairs, horrors and disgusts, and other indescribable miseries, not the least of which were the ministrations of the unspeakable Firx. From this total I will subtract for my initial indiscretion, and possibly one or two further ameliorations, leaving an imposing balance of retribution. Luckily, you are Iucounu the Laughing Magician: you will certainly derive a wry impersonal amusement from the situation." Cugel turned an inquiring glance up at Iucounu, but the returning gaze was anything but jocular.

"A final question," said Cugel. "Have you arranged any traps or lures in which I might be destroyed or immobilized? One blink will express 'no'; two, 'yes'."

Iucounu merely gazed contemptuously from the tube.

Cugel sighed. "I see that I must conduct myself warily."

Taking his wine into the great hall, he began to familiarize himself with the collection of magical instruments, artifacts, talismans and curios: now, for all practical purposes, his own property. Iucounu's gaze followed him every-

where with an anxious hope that was by no means reassuring.

Days went by and Iucounu's trap, if such existed, remained unsprung, and Cugel at last came to believe that none existed. During this time he applied himself to Iucounu's tomes and folios, but with disappointing results. Certain of the tomes were written in archaic tongues, indecipherable script or arcane terminology; others described phenomena beyond his comprehension; others exuded a waft of such urgent danger that Cugel instantly clamped shut the covers.

One or two of the workbooks he found susceptible to his understanding. These he studied with great diligence, cramming syllable after wrenching syllable into his mind, where they roiled and pressed and distended his temples. Presently he was able to encompass a few of the most simple and primitive spells, certain of which he tested upon Iucounu: notably Lugwiler's Dismal Itch. But by and large Cugel was disappointed by what seemed a lack of innate competence. Accomplished magicians could encompass three or even four of the most powerful effectuants; for Cugel, attaining even a single spell was a task of extraordinary difficulty. One day, while applying a spatial transposition upon a satin cushion, he inverted certain of the pervulsions and was himself hurled backward

into the vestibule. Annoyed by Iucounu's smirk, Cugel carried the tube to the front of the manse, affixed a pair of brackets upon which he hung lamps, which thereafter illuminated the area before the manse during the hours of night.

A month passed, and Cugel became somewhat more confident in his occupancy of the manse. Peasants of a nearby village brought him produce, and in return Cugel performed what small services he was able. On one occasion the father of Jince, the maiden who served as arranger of his bedchamber, lost a valuable buckle in a deep cistern, and implored Cugel to bring it forth. Cugel readily agreed, and lowered the tube containing Iucounu into the cistern. Iucounu finally indicated the location of the buckle, which was then recovered with a grapple.

The episode set Cugel to devising other uses for Iucounu. At the Azenomei Fair a 'Contest of Grotesques' had been arranged. Cugel entered Iucounu in the competition, and while he failed to win the prime award, his grimaces were unforgettable and attracted much comment.

At the fair Cugel encountered Fianosther, the dealer in talismans and magical adjuncts who had originally sent Cugel to Iucounu's manse. Fianosther looked in jocular surprise from Cugel to the tube containing Iucounu, which Cugel

was transporting back to the manse in a cart. "Cugel! Cugel the Clever!" exclaimed Fianosther. "Rumor then speaks accurately! You are now lord of Iucounu's manse, and of his great collection of instruments and curios!"

Cugel at first pretended not to recognize Fianosther, then spoke in the coolest of voices. "Quite true," he said. "Iucounu has chosen to participate less actively in the affairs of the world, as you see. Nonetheless, the manse is a warren of traps and dead-falls; several famished beasts stalk the grounds by night, and I have established a spell of intense violence to guard each entrance."

Fianosther seemed not to notice Cugel's distant manner. Rubbing his plump hands, he inquired: "Since you now control a vast collection of curios, will you sell certain of the less choice items?"

"I have neither need nor inclination to do so," said Cugel. "Iucounu's coffers contain gold to last till the sun goes dark." And both men, after the habit of the time, looked up to gauge the color of the moribund star.

Fianosther made a gracious sign. "In this case, I wish you a good day, and you as well." The last was addressed to Iucounu, who returned only a surly glare.

Returning to the manse, Cugel brought Iucounu into the vestibule; then making his way to the roof, leaned on a parapet and

gazed over the expanse of hills which rolled away like swells on a sea. For the hundredth time he pondered Iucounu's peculiar failure of foresight; by no means must he, Cugel, fall into similar error. And he looked about with an eye to defense. Above rose the spiral green glass towers; below slanted the steep ridges and gables which Iucounu had deemed aesthetically correct. Only the face of the ancient keep offered an easy method of access to the manse. Along the slanting outer abutments Cugel arranged sheets of soapstone in such a manner that anyone climbing to the parapets must step on these and slide to his doom. Had Iucounu taken a similar precaution—so Cugel reflected—instead of arranging the over-subtle crystal maze, he would not now be looking forth from the tall glass tube.

Other defenses must also be perfected: namely those resources to be derived from Iucounu's shelves.

Returning to the great hall, he consumed the repast set forth by Jince and Skivvee, his two comely stewardesses, then immediately applied himself to his studies. Tonight they concerned themselves with the Spell of Forlorn Encystment, a reprisal perhaps more favored in earlier aeons than the present, and the Agency of Far Despatch, by which Iucounu had transported him to the northern wastes. Both spells were of no

small power; both required a bold and absolutely precise control, which Cugel at first feared he would never be able to supply. Nevertheless he persisted, and at last felt able to encompass either the one or the other, at need.

Two days later it was as Cugel had expected: a rap at the front door which, when Cugel flung wide the portal, indicated the unwelcome presence of Fianosther.

"Good day," said Cugel cheerlessly. "I am indisposed, and must request that you instantly depart."

Fianosther made a bland gesture. "A report of your distressing illness reached me, and such was my concern that I hastened here with an opiate. Allow me to step within—" so saying he thrust his portly figure past Cugel—"and I will decant the specific dose."

"I suffer from a spiritual malaise," said Cugel meaningfully, "which manifests itself in outbursts of vicious rage. I implore you to depart, lest, in an uncontrollable spasm, I cut you in three pieces with my sword, or worse, invoke magic."

Fianosther winced uneasily, but continued in a voice of unquenchable optimism. "I likewise carry a potion against this disorder." He brought forth a black flask. "Take a single swallow and your anxieties will be no more."

Cugel grasped the pommel of his sword. "It seems that I must speak without ambiguity. I com-

mand you: depart, and never return! I understand your purpose and I warn that you will find me a less indulgent enemy than was Lucounu! So now, be off! Or I inflict upon you the Spell of the Macroïd Toe, whereupon the signalized member swells to the proportions of a house."

"Thus and so," cried Fianosther in a fury. "The mask is torn aside! Cugel the Clever stands revealed as an ingrate! Ask yourself: who urged you to pillage the manse of Lucounu? It is I, who, by every standard of honest conduct, should be entitled to a share of Lucounu's wealth!"

Cugel snatched forth his blade. "I have heard enough; now I act."

"Hold!" And Fianosther raised high the black flask. "I need only hurl this bottle to the floor to unloose a purulence, to which I am immune. Stand back then!"

But Cugel, infuriated, lunged, to thrust his blade through the upraised arm. Fianosther called out in woe, flung the black bottle into the air. Cugel leapt to catch it with great dexterity; but meanwhile, Fianosther, jumping forward, struck him a blow, so that Cugel staggered back and collided with the glass tube containing Lucounu. It toppled to the stone, shattered; Lucounu crept painfully away from the fragments.

"Ha ha!" laughed Fianosther. "Matters now move in a different direction!"

"By no means!" called Cugel, bringing forth a tube of blue concentrate which he had found among Iucounu's instruments.

Iucounu strove with a sliver of glass to cut the seal on his lips. Cugel projected a waft of blue concentrate and Iucounu gave a great tight-lipped moan of distress. "Drop the glass!" ordered Cugel. "Turn about to the wall." He threatened Fianosther. "You as well!"

With great care he bound the arms of his enemies, then stepping into the great hall possessed himself of the workbook which he had been studying.

"And now—both outside!" he ordered. "Move with alacrity! Events will now proceed to a definite condition!"

He forced the two to walk to a flat area behind the manse, and stood them somewhat apart. "Fianosther, your doom is well-merited. For your deceit, avarice and odious mannerisms I now visit upon you the Spell of Forlorn Encystment!"

Fianosther wailed piteously, and collapsed to his knees. Cugel took no heed. Consulting the workbook he encompassed the spell, then pointing and naming Fianosther, spoke the dreadful syllables.

But Fianosther, rather than sinking into the earth, crouched as before. Cugel hastily consulted the workbook and saw that in error he had transposed a pair of pervul-

sions, thereby reversing the quality of the spell. Indeed, even as he understood the mistake, to all sides there were small sounds, and previous victims across the aeons were now erupted from a depth of forty-five miles, and discharged upon the surface. Here they lay, blinking in glazed astonishment; though a few lay rigid, too sluggish to react. Their garments had fallen to dust, though the more recently encysted still wore a rag or two. Presently all but the most dazed and rigid made tentative motions, feeling the air, groping at the sky, marveling at the sun.

Cugel uttered a harsh laugh. "I seem to have performed incorrectly. But no matter. I shall not do so a second time. Iucounu, your penalty shall be commensurate with your offense, no more, no less! You flung me willy-nilly to the northern wastes, to a land where the sun slants low across the south. I shall do the same for you. You inflicted me with Firx; I will inflict you with Fianosther. Together you may plod the tundras, penetrate the Great Erm, win past the Mountains of Magnatz. Do not plead; put forward no excuses: in this case I am obdurate. Stand quietly unless you wish a further infliction of blue ruin!"

So now Cugel applied himself to the Agency of Far Despatch, and established the activating sounds carefully within his mind. "Prepare yourselves," he called.

With that he sang forth the spell, hesitating at only one pervulsion where uncertainty overcame him.

But all was well. From on high came a thud and a guttural outcry, as a coursing demon was halted in mid-flight.

"Appear, appear!" called Cugel. "The destination is as before: to the shore of the northern sea, where the cargo must be delivered alive and secure! Appear! Seize the designated persons and carry them in accordance with the command!"

A great flapping buffeted the air; a black shape with a hideous visage peered down. It lowered a talon; Cugel was lifted and car-

ried off to the north, betrayed a second time by a misplaced pervulsion.

For a day and a night the demon flew, grumbling and moaning. Somewhat after dawn Cugel was cast down on a beach and the demon thundered off through the sky.

There was silence. To right and left spread the gray beach. Behind rose the foreshore with a few clumps of salt-grass and spinifex. A few yards up the beach lay the splintered cage in which once before Cugel had been delivered to this same spot. With head bowed and arms clasped around his knees, Cugel sat looking out across the sea.

COMING NEXT MONTH

Murray Douglas is an actor. He has also been an alcoholic. His career has been ruined, and his health is only slowly mending. But for mysterious reasons, Manuel Delgado, the brilliant Argentine playwright, has asked him to join his company for a new London production.

This is a chance for a new career—the chance Murray has been looking for. But why has Delgado cast his new production entirely with misfits, has-beens, and never-will-be's? And, more important to Murray Douglas, why is Delgado trying to get him to return to drinking?

There are rumors . . . rumors that Delgado's last production, in Paris, resulted in the suicide of its star, and insanity for one of its actresses.

Who is this brilliant demon, Delgado? And why is he tampering with the already unstable minds of his company? Can he wish to drive them *all* to the brink of insanity? Or—has Murray Douglas already passed over the threshold of paranoia in his attempts to unravel Delgado's secret?

In **THE PRODUCTIONS OF TIME**, John Brunner, author of the highly acclaimed **THE WHOLE MAN** and **THE SQUARES OF THE CITY**, presents a chillingly different two-part novel—*with a conclusion that will stand your hair on end.*

MARKET PLACE

BOOKS-MAGAZINES

"ESP TESTING—DO-IT-YOURSELF". Fascinating! Anyone can do! \$2.00. MAGNETIC, Box 3677-FFY, Washington, D.C. 20007.

SF Bargains. List free. Werewolf Bookshop, Verona 4G, Pa.

Locate any book! Caribbean Magic Bookhunters, Box 15070-C, Orlando, Fla.

25,000 magazines for sale. Thousands wanted in excellent condition; science fiction, weird, horror, spicy, western, adventure, others. Send list, enclosing stamp, Magazine Center, Box 214, Little Rock, Ark.

Inventory Clearance. Send \$1. for seven mystery pocket books—Mercury Mysteries, Bestseller Mysteries, Jonathan Press Mysteries—in good condition. Maximum order, 21 books for \$3. Send order and remittance to: Mercury Press, Box 271, Rockville Centre, N. Y. 11571.

Love Lyrics, Songs—\$1.00. Free catalogue, Bookways, 444-FS, Fort Lee, New Jersey, 07024.

FREE BOOK "990 Successful, Little-Known Businesses." Work home! Plymouth-935G, Brooklyn, New York 11218.

Better Occult, Witchcraft, Demonology. Catalogs. Summerfare Books, Box 9617, San Diego, California 92109.

WHY buy books? For information write—Science Fiction Circulating Library, Box 1308, So. San Gabriel, California 91777.

FOR SALE—209 SF mags. Some old, free list, 10503—136th Street E., Puyallup, Wash. 98371.

BOOKPLATES

FREE CATALOGUE—Many beautiful designs. Special designing too. Address BOOKPLATES, Yellow Springs 4, Ohio.

HYPNOTISM

Free Illustrated, Hypnotism Catalogue. Write Powers, 8721 Sunset, Hollywood, California 90069.

FREE Hypnotism, Self-Hypnosis, Sleep learning Catalog! Drawer G400, Ruidoso, New Mexico 88345.

LEARN WHILE ASLEEP, Hypnotize with your recorder, phonograph. Astonishing details, sensational catalog free. Sleep-learning Research Association, Box 24-FS, Olympia, Washington.

PERSONAL

English speaking Swedish/German girls seek penfriends/husbands. Photoalbum \$5.00; prospectus free!—COSMOCLUB "SILVERTHISTLE", Hamburg 72/SF, Germany.

FASCINATING CURIOS, RARE GIFTS. Unusual catalog 10¢. WORLDWIDE CURIO HOUSE, Dept. FSF, Box 5655, Minneapolis, Minn. 55417.

YOUR HOROSCOPE and lucky number guide. Send birthdate and quarter. Bell, P. O. Box 396, Long Beach, New York 11562.

Do you have something to advertise to sf readers? Books, magazines, typewriters, telescopes, computers, space-drives, or misc. Use the F&SF Market Place at these low, low rates: \$3.00 for minimum of ten (10) words, plus 30¢ for each additional word. Send copy and remittance to: Adv. Dept., Fantasy and Science Fiction, 347 East 53 Street, New York, N. Y. 10022

Get out of debt—clear your credit, immediate relief—Free details, Advisor, Box 48337-SF1, Los Angeles 90048.

Keno players, win with my computer age method, \$1.00. Win, Box 265, Alamo, Calif.

WANTED

Shaver Mysteries original prints in Amazing "I Remember Lemuria," "Return to Lemuria". 10503 136th St. E., Puyallup, Wash. 98371.

PSYCHOTRON-Safe electronically induced human equilibrium disrupter and electrogenic flash stimulator. Directions and research possibilities included. Operates on two transistor radio batteries (not included). \$3.49. Biopsychics, Box 4072, Star City, W. Va.

MISCELLANEOUS

FOREIGN EDITIONS of Fantasy and Science Fiction Limited offer—Send \$1. for any 3 foreign edition copies of F&SF (usually 50¢ each)—French, German, Italian, Japanese, Spanish, or British Venture SF. Mercury Press, Box 271, Rockville Centre, N.Y. 11571.

I am God (Good)/Enlightened. Huge 10 page leaflet (Creation, Religion, Names of God, Numbers, Letters, Colors, Body, Astrology, Politics, Cigarettes, Bibliograph, Mu) Free. Patronage accepted. Benedict Schwartzberg, c/o Lachmann, 314 2 Ave., N. Y.



YOUR MARKET PLACE

A market is people—alert, intelligent, active people.

Here you can reach 180,000 people (averaging three readers per copy—60,000 paid circulation). Many of them are enthusiastic hobbyists—collecting books, magazines, stamps, coins, model rockets, etc.—actively interested in photography, music, astronomy, painting, sculpture, electronics.

If you have a product or service of merit, tell them about it. The price is right: \$3.00 for a minimum of ten (10) words, plus 30¢ for each additional word. To keep the rate this low, we must request remittance with the order.

Advertising Dept., Fantasy & Science Fiction
347 East 53 St., New York, N. Y. 10022



CLIFTON FADIMAN, writer and editor, judge of the Book-of-the-Month Club, writes: "Each of us has his own special escape-reading. Mine is science fiction. To my mind Fantasy and Science Fiction regularly supplies the finest the field has to offer in the way of short fiction."



LOUIS ARMSTRONG writes: "I believe *The Magazine of Fantasy and Science Fiction* appeals to me because in it one finds refuge and release from everyday life. We are all little children at heart and find comfort in a dream world, and these episodes in the magazine encourage our building castles in space."



BASIL DAVENPORT, writer and editor, judge of the Book-of-the-Month Club, writes: "I have been a fan of science fiction all my life, and of *The Magazine of Fantasy and Science Fiction* for all its life. F&SF gives us some of the best writing in the field, and the field is one of great importance."



HUGO GERNSBACK, pioneer in science fiction publishing, writer and editor, writes: "Plus ça change, plus c'est la même chose—is a French truism, lamentably accurate of much of our latter day science fiction. Not so in the *Cyclotron Magazine of Fantasy and Science Fiction* which injects sophisticated isotopes, pregnant with imagination, into many of its best narratives."



ORVILLE PRESCOTT, literary critic and author, Book Review Editor for the *New York Times*, writes: "People who think that their literary I.Q. is too high for them to enjoy the *Magazine of Fantasy and Science Fiction* don't know what they are missing. The number of well-written, ingenious and entertaining stories it regularly publishes is astonishingly high."



BEN GRAUER, radio and television outstanding special events reporter: "Science fiction, I think, offers a wonderful education for its readers—it extends their understanding to include the entire cosmos."

PEOPLE WITH
IMAGINATION

READ THE MAGAZINE OF
**FANTASY AND
SCIENCE FICTION**

Stars of the entertainment world . . . notables in the news . . . distinguished authors and editors—all owe much of their success to imagination. So when they want relaxation or stimulation in reading, they turn naturally to the finest works of imagination; tales of science fiction. And they find such stories—exciting, fast-paced and exceedingly well written—in **THE MAGAZINE OF FANTASY AND SCIENCE FICTION**. Here they find current top-notchers such as Robert Heinlein, Arthur C. Clarke, Theodore Sturgeon and Isaac Asimov; plus unexpected fantasies from writers famous in other fields, such as Stuart Palmer and Mark Van Doren. As a bonus, F&SF has a unique record of finding stimulating new talents—such fine writers as Mildred Clingerman, Richard Matheson and Chad Oliver first appeared in these pages. . . . In a word, here is the best of fantasy and science fiction.

50c at better newsstands every month
By subscription \$5.00 a year
347 East 53 Street New York 22, N. Y.

